

Safety Data Sheet acc. to OSHA HCS

Print Date 12/02/2015

Revision Date 12/02/2015

- **Product Identifier**
 - **Trade Name:** UR6000 A
 - **Application of the Substance or Mixture:** Polyols
- **Details of the Supplier of the Safety Data Sheet (SDS)**
 - **Manufacturer or Supplier:**
Resinlab, LLC
N109 W13300 Ellsworth Drive,
Germantown, WI 53022
1-800-388-8605
www.resinlab.com
 - **Information Department:** Product Safety Department: msds@resinlab.com
 - **Emergency Telephone Number:**
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

2 Hazard(s) identification

- **Hazard Classification**
Eye Irrit. 2A H319 Causes serious eye irritation.
Repr. 2 H361 Suspected of damaging fertility or the unborn child. Route of exposure: Oral.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
- **Label Elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Pictogram(s)**



GHS07 GHS08

- **Signal Word** Warning
- **Hazard-determining Component(s)**
Triarylphosphate isopropylated
Dipropylene glycol
- **Hazard statements**
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child. Route of exposure: Oral.
May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements**
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear eye protection / face protection.
Wash thoroughly after handling.
Obtain special instructions before use.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard Rating System**
 - **NFPA System**
 - **NFPA Ratings (scale 0 - 4)**



NFPA special hazards (water reactivity and oxidizing property): None

- **HMIS System**
 - **HMIS Ratings (scale 0 - 4)**

HEALTH	*2
FIRE	1
REACTIVITY	0

Health = *2
Fire = 1
Reactivity = 0

- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical Characterization: Mixtures**

· **Composition/Information on Ingredients**

CAS: 8001-79-4 EINECS: 232-293-8 RTECS: FI 4100000	Castor oil	Eye Irrit. 2A, H319	30-40%
CAS: 25265-71-8 EINECS: 246-770-3	Dipropylene glycol	STOT RE 2, H373 Eye Dam. 2B, H320	2.5-5%
CAS: 1318-02-1 EINECS: 215-283-8	Zeolites	Eye Irrit. 2A, H319; STOT SE 3, H335	2.5-5%
CAS: 68937-41-7 EINECS: 273-066-3	Triarylphosphate isopropylated	Repr. 2, H361; STOT RE 2, H373 Aquatic Chronic 2, H411 Aquatic Acute 2, H401	2.5-5%
CAS: 1333-86-4 EINECS: 215-609-9 RTECS: FF5800000	Carbon black		0.1-1%

· **Classification System:**

The Classifications were based on the Toxicological and Ecological Data of the substances/mixtures in the Section 11 and 12.

· **Additional Information:**

If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

4 First-aid measures

· **Description of First Aid Measures**

· **General Information**

Symptoms may be delayed several hours after exposure; victims should be medically observed for at least 48 hours after exposure.

Ensure medical personnel are aware of exposure and take precautions for their personal protection; see Section 8 for the information of personal protection.

· **After Inhalation**

Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.

Supply fresh air; consult doctor in case of complaints.

· **After Skin Contact**

Gently wash contaminated skin with water.

Remove all contaminated clothing and wash before reuse.

Seek medical treatment in case of complaints.

· **After Eye Contact**

Immediately bathe eyes for 15 minutes under running water.

Immediately remove contact lenses if present. Continue rinsing.

Seek medical advice.

· **After Swallowing**

If victim is unconscious; never give anything by mouth.

If victim is conscious; rinse out mouth and give victim small amounts of water.

Seek medical treatment in case of complaints.

· **Additional Information**

For additional information, please consult the corresponding first aid measures in the most current version of Emergency Response Guidebook which is produced by the US Department of Transportation.

5 Fire-fighting measures

· **Extinguishing Media**

· **Suitable Extinguishing Agent(s)**

Use fire fighting measures and extinguishing agents that suit the environment.

In case of fire, suitable extinguishing agents are:

Alcohol resistant foam.

Dry chemical or fire-extinguishing powder.

Carbon dioxide (CO₂).

Water spray or water fog.

· **Unsuitable Extinguishing Agent(s)** No relevant information.

· **Firefighting Procedures**

Isolate fire and deny unnecessary entry.

Eliminate all ignition sources if safe to do so.

Do not extinguish fire unless flow can be stopped.

Fight fire remotely due to the risk of explosion.

Burning liquids may be moved by flushing with water; protect personnel and minimize property damage.

· **Special Hazards Arising in Fire**

Will not burn unless preheated.

In case of fire, following can be released:

Carbon dioxide (CO₂) and Carbon monoxide (CO)

Titanium oxides

Aluminum oxide (Al₂O₃) dust, a serious respiratory irritant, may be formed during fires.

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Sodium oxides
Iron oxides
Silicon oxide (SiO₂)

Advice for Firefighters

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).

As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

6 Accidental release measures

Personal Precautions

Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use. Ensure personnel take precautions for their personal protection during clean up; see Section 8 for the specific requirements.

Environmental Precautions No further relevant information.

Cleaning Up Methods

Ensure adequate ventilation.
Eliminate all ignition sources.
Keep unauthorized personnel away.
Absorb residues with liquid-binding materials.
Avoid confined spaces, such as sewers, because of the possibility of an explosion.
Ventilate and wash area after clean-up is complete.
Collect spills in suitable and properly labeled containers.
Do not use solvents unless following safe handling practices and within the recommended exposure guidelines.
Dispose contaminated chemicals as waste according to Section 13.

7 Handling and storage

Handling

Precautions for Safe Handling

Handle in well ventilated work space.
Keep away from incompatible material(s).
Avoid any release into the environment.
Observe all the personal protection requirements in Section 8.

Information about Protection Against Explosions and Fires

Will not burn unless preheated.
Keep away from heat, sparks, open flame and other ignition sources during handling.
Be prepared with respirators.
Dust can combine with air to form an explosive mixture.

Storage

Requirements to be Met by Storerooms and Receptacles

Store in a well-ventilated place; provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.

Information about Storage in One Common Storage Facility

Store away from incompatible material(s).
Store away from foodstuffs.
Avoid release to the environment.

Additional Information No further relevant information.

8 Exposure controls/personal protection

Engineering Measures or Controls

Exposure Limit Values that Require Monitoring at the Workplace

8001-79-4 Castor oil

TEEL-1 Short-term value: 125 mg/m³
TEEL-2 Short-term value: 500 mg/m³
TEEL-3 Short-term value: 500 mg/m³

1333-86-4 Carbon black

PEL Long-term value: 3.5 mg/m³
REL Long-term value: 3.5* mg/m³
*0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV Long-term value: 3* mg/m³
*inhalable fraction

Other Engineering Measures or Controls

Ventilation rates should be matched to conditions.
If applicable, use process enclosure(s), local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal Protective

General Protective and Hygienic Measures

Avoid any contact with eye.
Do not eat, drink or smoke during work.
Clean hands and exposed skin thoroughly after work and before breaks.

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Personal Protective Equipment (PPE)

Breathing Equipment

Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

Hand Protection

Selection of glove material should take into consideration the penetration times, rates of diffusion, and the degradation.

Suggested glove type(s):

- Nitrile Gloves
- Butyl Rubber Gloves

Eye Protection

safety glasses with side shields and or face shield.
tightly sealed goggles and face shields if the potential for splashing occurs.

Body Protection Chemical resistant apron; cover exposed skin.

Additional Information

The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

9 Physical and chemical properties

Information on Basic Physical and Chemical Properties

Appearance:

- Form:** Liquid
- Color:** Black
- Odor:** Characteristic
- Odor Threshold:** Not determined.

PH-Value: Not determined.

Change in Condition:

- Melting Point:** Not determined.
- Boiling Point:** Not determined.
- Flash Point:** 229 °C (444 °F)
- Decomposition Temperature:** Not determined.
- Flammability:** Not determined.
- Explosion:** Not determined.
- Explosion Limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.

Vapor Pressure: Not determined.

Vapor Density: not determined

Density: Not determined.

Solubility in or Miscibility with

- Water:** Not miscible or difficult to mix.
- Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.

10 Stability and reactivity

Physical Hazard(s) Not a regulated reactive or physical hazard under GHS.

Hazardous Reactivity and Chemical Stability Stable under normal conditions of use, storage and temperatures.

Thermal Decomposition and Conditions to be Avoided

Keep away from incompatible material(s).

Thermally decomposes during fire or high heat; keep away from heat, sparks, open flame and other ignition sources.

Possibility of Other Hazardous Reaction(s) In contact with incompatible materials.

Incompatible Material(s)

- Oxidizing agents
- Acids
- Bases (Alkalis)
- Oxidizing acids

Hazardous Decomposition Product(s)

Thermally decomposes during fire or very high heat. See Section 5 for fire hazards evolved during thermal decomposition.

Hazardous Polymerization Product(s) No relevant information.

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11 Toxicological information

· Acute Toxicity

· Oral

21645-51-2 Aluminum hydroxide

Oral LD50 (rat) (LD0(OECD TG 401)>5000mg/kg: no death occurred)
 No mortality was observed after a single oral administration with 5000 mg/kg of the substance.
 Reference: ECHA (2011) and IUCLID Dataset (2000).

8001-79-4 Castor oil

Oral LD50 (Human) (Probable oral lethal dose=5000-15000 mg/kg)
 Reference: NLM HSDB (2011).

92704-41-1 Calcined Kaolin

Oral LD50 > 5000 mg/kg (rat)
 (EPA OPP81-1; Read-across from supporting substance (structural analogue or surrogate; no identification available))
 All animals survived, and appeared active and healthy after a single oral administration of 5000 mg/kg bw of the substance.
 Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

Oral LD50 > 5000 mg/kg (rat) (EPA OPP81-1)
 No death or abnormal effect found at the end of the 1-day observation period.
 Reference: ECHA (2011).

1318-02-1 Zeolites

Oral LD50 > 5110 mg/kg (rat) (OECD TG 401)
 > 10000 mg/kg (mouse) (Henkel-method)
 Reference: IUCLID Dataset (2000).

· Potential Health Effect(s):

diarrhea
 abnormal pain, headache, nausea, vomiting, drowsiness
 See acute inhalative effect(s) for further information

· Dermal

21645-51-2 Aluminum hydroxide

Dermal LD50 (Test species: n/a) (Toxicity not expected based on acute oral data)

8001-79-4 Castor oil

Dermal LD50 (Test species: n/a) (Toxicity not expected based on acute oral data)

92704-41-1 Calcined Kaolin

Dermal LD50 > 5000 mg/kg (rat)
 (EPA OPP81-2; semioclusive; Read-across from supporting substance (structural analogue or surrogate; no identification available))
 All animals survived, gained weight, and appeared active and healthy after a single dermal administration with 5000 mg/kg bw of the test substance.
 Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

Dermal LD50 > 5010 mg/kg (rabbit) (EPA OPP81-2)
 No death or abnormal effect found at the end of the 14-day observation period.
 Reference: ECHA (2011).

1318-02-1 Zeolites

Dermal LD50 (rabbit) (LD0 ≥ 2000 mg/kg; Henkel-method)
 No mortality or any signs of toxicity observed; the substance was not classified as hazardous via dermal application.
 Reference: IUCLID Dataset (2000).

· Potential Health Effect(s):

No further relevant information available; classification is not possible.
 See acute inhalative effect(s) for further information.

· Inhalative

21645-51-2 Aluminum hydroxide

Inhalative LC50/4 h (Test species: n/a) (Toxicity not expected as a wetted form)
 Due to wetted form, inhalative effects of the substance can be seen as negligible.

8001-79-4 Castor oil

Inhalative LC50/4 h (Test species: n/a) (Toxicity not expected based on acute oral data)

92704-41-1 Calcined Kaolin

Inhalative LC50/4 h (Test species: n/a)
 Due to the wetted form, inhalative effects of the substance can be seen as negligible

25265-71-8 Dipropylene glycol

Inhalative LC50/4 h (rat) (LC0 (EPA OPP81-3) > 2.34 mg/l)
 No death or abnormal effect found at the end of the 2-week observation period up to the maximum tested dose level of 2.34 mg/L/4 hours.
 Reference: ECHA (2011).

1318-02-1 Zeolites

Inhalative LC50/4 h (Test species: n/a)
 Due to wetted form of the substance, inhalative effects from dust form can be seen as negligible. Meanwhile, based on the acute oral toxicity test, it was expected that toxicity to mammals via inhalation of the substance was not a significant concern and resulted in a similar lack of acute toxicity. Thus, the substance was not classified as an acute inhalation hazard as a wetted form.

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Potential Health Effect(s):

While not possible to classify the acute inhalative hazard due to missing data, the product may cause the following symptom(s):

Skin Corrosion or Irritation

21645-51-2 Aluminum hydroxide

Corrosion/Irritation not irritating (rabbit) (OECD TG 404; semioclusive; 4hr-contact; undiluted)
Erythema and Edema: 0 (Time point: 24+48+72 hrs; mean score of all treated animals)
Thus, the substance was not irritating to rabbit skin.
Reference: ECHA (2011).

8001-79-4 Castor oil

Corrosion/Irritation slightly irrit. (Human) (After 0.05g neat substance to males)
0.05 g neat substance applied to skin of the back of 50 adult male volunteers for 48 hours induced irritating scores ranging from negative to bullous. The substance was classified as mildly irritating to human skin (Category 3) for safety reason.
Reference: NLM HSDB (2011).

92704-41-1 Calcined Kaolin

Corrosion/Irritation (rabbit)
(OECD TG 404; semioclusive; Read-across from supporting substance (structural analogue or surrogate; no identification available))
Erythema and edema: 0 (Time-point: 24, 48 hrs and 72hrs; mean score of all treated animals)
Thus, the substance was not irritating to rabbit skin.
Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

Corrosion/Irritation (rabbit) (EPA OPP81-5)
Erythema: 0 (time point: 24+48+72 hours; mean score of all treated animals)
Edema: 0 (time point: 24+48+72 hours; mean score of all treated animals)
Reference: ECHA (2011).
(rabbit) (Draize test)
The substance was slightly irritating to rabbit skin (500 mg; 24 hours; occluded).
Reference: OECD SIDS (2001).

1318-02-1 Zeolites

Corrosion/Irritation not irritating (rabbit) (OECD TG 404)
not irritating (human) (Patch test)
The substance was not a dermal irritant.
Reference: IUCLID Dataset (2000).

Potential Health Effect(s): No further relevant information; classification is not possible.

Eye Serious Damage or Irritation

21645-51-2 Aluminum hydroxide

Damage/Irritation slightly irrit. (rabbit) (OECD TG 405; 1hr-contact; undiluted powder)
Conjunctivae: (0-1)/3 (Max. 3; Time point: 24 hrs; mean score of all treated animals)
Conjunctivae: 0/3 (Max. 3; Time point: 48+72 hrs; mean score of all treated animals)
Chemosis, Iris, and cornea: 0/3 (Time point: 24+48+72 hrs; mean score of all treated animals)
slightly irritating (rabbit) (US FDA Draize and Kelly test; Read-across from CAS 1344-28-1)
Cornea and Iris score: 0 (Time point: 24 hours)
Conjunctivae: 1/3 (Max. 3; mean score of all treated rabbits); fully reversible in 7 days.
Based on the classification criteria, the substance was mildly irritating to eyes (Category 2B).
Reference: ECHA (2011).

8001-79-4 Castor oil

Damage/Irritation slightly irrit. (Human) (mild discomfort and minor epithelial changes found)
Daily application of the substance to eyes of 9 patients for 15 days resulted in mild and transient discomfort and minor epithelial changes. The substance was therefore classified as mildly irritating to human eyes (Category 2B).
Reference: NLM HSDB (2011).

92704-41-1 Calcined Kaolin

Damage/Irritation (rabbit)
(EPA OPPTS 870.2400; 0.1 mL neat substance; Read-across from supporting substance (structural analogue or surrogate; no identification available))
Cornea, iris, and chemosis: 0 (Time point: 24+48+72hrs; mean score of 3 rabbits)
Conjunctiva: 0.33/3 (Max. 3; 1 out of 3 rabbits; Time point: 24 hrs); fully reversible in 48hrs
Conjunctiva: 0 (Max. 3; 2 out of 3 rabbits; Time point: 24+48+72hrs)
Thus, the substance was not irritating to rabbit eyes based on the classification criteria.
Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

Damage/Irritation (rabbit) (EPA OPP81-4)
Cornea, Iris, Conjunctivae and Chemosis: 0 (time point: 24+48+72 hours; mean score of all treated animals).
Reference: ECHA (2011).
(rabbit) (Draize test)
The substance is slightly irritating to rabbit eyes (0.1 mL neat substance; 24 hrs; semi-occluded)
Reference: OECD SIDS (2001).

1318-02-1 Zeolites

Damage/Irritation (rabbit)
-(Draize test and Directive 84/449/EEC B5): Slightly irritating.
Instillation of 10 mg neat substance in rabbit eyes caused a foreign-body reaction due to mechanical action of the substance.
-(OECD TG 405): Not irritating.
There were no alterations in cornea or iris, but slight hyperemia in conjunctiva observed.
For safety reason, the substance was classified as a slight eye irritant (Category 2B).
Reference: IUCLID Dataset (2000).

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Potential Health Effect(s):
Causes serious eye irritation.
In contact with eye, may cause:
redness and pain

Respiratory or Skin Sensitization

21645-51-2 Aluminum hydroxide

Sensitization	Skin	not sensitizing (guinea pig) (OECD TG 406; intradermal and epicutaneous) Skin sensitizing reaction was not observed; the substance was not classified as a skin sensitizer. Reference: ECHA (2011).
	Respiratory	(No data available) Due to wetted form, inhalative effects of the substance can be seen as negligible.

8001-79-4 Castor oil

Sensitization	Skin	sensitizing (Human) (clear hyperchromasia observed after 10 days) Undiluted substance which was daily applied to test fields delineated on the right thigh of three males (22 to 31 years old) less than 30 seconds for 10 days resulted in macroscopic and microscopic skin changes including clear hyperchromasia, an increase in the number of cells in the basal cell layer, slight widening of the granular cell layer. For safety reason, the substance was classified as a skin sensitizer to humans (Category 1). Reference: NLM HSDB (2011).
	Respiratory	(No data available)

92704-41-1 Calcined Kaolin

Sensitization	Skin	not sensitizing (mouse) (OECD TG 429; Read-across from 1335-30-4) None of the measured parameters reached or exceeded the positive levels that can define sensitization by comparing the treated animals with the control groups. Reference: ECHA (2011).
	Respiratory	(Test species: n/a) Due to the wetted form, inhalative effects of the substance can be seen as negligible.

25265-71-8 Dipropylene glycol

Sensitization	Skin	(guinea pig) (EPA OPP81-6) Number with positive reactions: 0 (0.5 mL neat substance; Time point: 24+48+72 hrs) The substance is not sensitizing to pig skin. Reference: ECHA (2011).
	Respiratory	(No data available)

1318-02-1 Zeolites

Sensitization	Skin	not sensitizing (guinea pig) (Buehler test and maximization test) not sensitizing (human) (Buehler test) The substance did not induce any sensitizing reactions in either of the tests; the substance was not classified as a dermal sensitizer. Reference: IUCLID Dataset (2000).
	Respiratory	(Test species: n/a) Due to the wetted form, inhalative effects of the substance can be seen as negligible.

Potential Health Effect(s): No relevant information for respiratory sensitization; classification is not possible.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Germ Cell Mutagenicity

21645-51-2 Aluminum hydroxide

Mutagenicity	(rat) (In Vivo (micronucleus assay); OECD TG 474) In Vitro (mammalian cell gene mutation assay; OECD TG 476; mouse lymphoma L5178Y cells) - negative with and without metabolic activation. In Vivo (micronucleus assay; male rats; OECD TG 474; oral with up to 2000 mg/kg bw) - negative; the substance did not change the frequency of micronucleus in polychromatic erythrocytes in rat bone marrow. Reference: ECHA (2011).

8001-79-4 Castor oil

Mutagenicity	negative (salmonella typhimurium) (In Vitro (AMEs test; TA 97, 98, 1535 strains)) Reference: CCRIS (2011).
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92704-41-1 Calcined Kaolin

Mutagenicity	(Test species listed below) (Read-across from supporting substance (structural analogue or surrogate; no identification available)) In Vitro (bacterial reverse mutation assay; TA97a, TA98, TA100, TA102, TA1535 Salmonella typhimurium; OECD TG 471) - negative with and without metabolic activation In Vitro (mammalian chromosome aberration test; human embryonic lung cultures) - negative without metabolic activation In Vitro (mammalian cell gene mutation assay; CHO-K1-BH4 (Chinese Hamster Ovary); OECD TG 476) - negative with and without metabolic activation In Vivo (chromosome aberration assay; rat; oral with up to 425 mg/kg bw; OECD TG 475) - negative; no detectable significant aberration of the bone marrow metaphase chromosomes was observed. Thus, the substance can be considered as non-mutagenic. Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

Mutagenicity	(Test species listed below) In Vitro (bacterial reverse mutation assay; S. typhimurium) - negative with and without metabolic activation In Vitro (Mammalian cell gene mutation assay; mouse lymphoma L5178Y cells; OECD TG 476) - negative with and without metabolic activation In Vivo (micronucleus assay; mouse; oral with up to 2000 mg/kg bw; OECD TG 474) - No genotoxicity effects found. Reference: ECHA (2011).

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1318-02-1 Zeolites

Mutagenicity (salmonella typhimurium)
In Vitro (AMES tests: OECD TG 471) - negative with and without metabolic activation
Reference: IUCLID Dataset (2000).

· **Potential Health Effect(s):** No further relevant information; classification is not possible.

· **Carcinogenicity**

21645-51-2 Aluminum hydroxide

Carcinogenicity negative (Human) (No cancer risks observed from human study reports)
Based on human study reports, the substance was not associated with any cancer risks.
(Test species: N/A)
The substance was not regulated as a carcinogen by IARC, NTP, or OSHA.
Reference: ECHA (2011).

8001-79-4 Castor oil

Carcinogenicity negative (mouse) (no tumor found after 20 week dermal doses)
After dermal semiweekly application of the substance for 20 weeks, no tumor was observed.
Reference: NLM HSDB.

92704-41-1 Calcined Kaolin

Carcinogenicity (rat)
(Read-across from supporting substance (structural analogue or surrogate; no identification available))
NOAEL (Oral; OECD TG 453; 103 weeks; both males and females) = 1760 mg/kg bw/day; there was no adverse effect regarding carcinogenicity observed during the 103-week oral study. Thus, the substance was not classified as a carcinogen.
Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

Carcinogenicity (rat)
NOAEL (oral; carcinogenicity, male rats) = 3040 mg/kg bw/day
NOAEL (oral; carcinogenicity, female rats) = 2330 mg/kg bw/day
No neoplastic lesion found at the highest dose tested; not classified as a carcinogen.
Reference: ECHA (2011).

1318-02-1 Zeolites

Carcinogenicity (rat)
-Route: oral with up to 60 mg/kg bw/day for two years
No significant incidence of particular types of tumors was evident in any of the tested organs, nor was there an indication of relevant induction of neoplasms. Thus, the substance was not classified as a carcinogen.
-Route: other
Due to normal use and as a wetted form, carcinogenicity studies of the substance via intraperitoneal injection (i.p.) and inhalation routes were not included.
Reference: IUCLID Dataset (2000).

· **Potential Health Effect(s):** Not a known Carcinogen.

· **Reproductive Toxicity**

21645-51-2 Aluminum hydroxide

Reproductive Toxi. negative (rat) (OECD TG 414; oral; 10 day-treatment; twice/day)
NOAEL (embryotoxicity and teratogenicity) = 266 mg/kg bw/day (maximum dose level); there was no developmental toxicity or embryotoxicity/teratogenicity potential observed.
Reference: ECHA (2011).

8001-79-4 Castor oil

Reproductive Toxi. negative (Human) (No statistically reproductive toxicity observed)
A 33-year-old pregnant female (at week 40 of gestation) appeared cardiopulmonary arrest due to amniotic fluid embolism within 60 min of ingestion of the substance. However, classification was not possible due to statistical insignificance of the case.
(rats and mice)
There was little or no evidence of any reproductive toxicity in the treated animals observed after repeated oral administration of 10% solution of the substance for 13 weeks.
Reference: NLM HSDB (2011).

92704-41-1 Calcined Kaolin

Reproductive Toxi. negative (rabbit)
(Read-across from supporting substance (structural analogue or surrogate; no identification available))
NOAEL (Maternal toxicity and teratogenicity; Oral; Day 6 to 18 of gestation) = 1600 mg/kg bw/day (maximum dose test). There was no developmental toxicity observed.
Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

Reproductive Toxi. (rat) (Read-across from 57-55-6; oral)
NOAEL (P-generation; male/female) = 10100 mg/kg bw/day
NOAEL (fertility; F1 and F2-generations) = 10100 mg/kg bw/day
No effects reported at the highest dose tested.
(rabbit) (OECD TG 414; oral)
NOAEL (developmental and maternal toxicity) ≥ 1200 mg/kg/day
No effects reported at the highest dose tested.
Reference: ECHA (2011).

1318-02-1 Zeolites

Reproductive Toxi. (rat)
negative (Oral with up to 1600 mg/kg daily on days 6-15 of pregnancy)
NOAEL (Maternal toxicity and Teratogenicity) ≥ 1600 mg/kg. There were no adverse effects observed on dams, embryos, or fetuses at any dose tested.
Reference: IUCLID Dataset (2000).

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68937-41-7 Triarylphosphate isopropylated

Reproductive Toxi. suspected (Test species: n/a)

Suspected of damaging fertility or the unborn child
Fertility effects; oral

Potential Health Effect(s): Suspected of damaging fertility or the unborn child. Route of exposure: Oral.

Specific Target Organ Toxicity - Single Exposure

21645-51-2 Aluminum hydroxide

STOT-Single Target: None (rat) (No mortality or any adverse effect observed)
No mortality or any adverse effect was observed after a single oral administration of 2000 mg/kg to rats.
Reference: ECHA (2011).

8001-79-4 Castor oil

STOT-Single (Human) (Respiratory tract irritation via Inhalation)
The substance caused respiratory tract irritation based on human evidence.
Reference: NLM HSDB (2011).

92704-41-1 Calcined Kaolin

STOT-Single (rat)
(Read-across from supporting substance (structural analogue or surrogate; no identification available))
Target organ: None
All animals survived, and appeared active and healthy after a single oral administration of 5000 mg/kg bw, or a single dermal application of 5000 mg/kg bw of the substance during a 14 day observation period.
Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

STOT-Single (Test species listed below) (EPA OPP81-1,2,&3)
Target organs: None
Rat (Oral with 5000 mg/kg): no abnormal effects were found at the end of the 1-day observation period.
Rabbit (Dermal with 5010 mg/kg): no abnormal effects were found at the end of the 14-day observation period.
Rat (Inhalative with 2.34 mg/L/4 H): no abnormal effects were found at the end of the 2-week observation period.
Reference: ECHA (2011).

1318-02-1 Zeolites

STOT-Single (rabbit)
Target organ: None
A single dermal application of 2000 mg/kg of the substance caused no signs of local or systemic effects.
Reference: IUCLID Dataset (2000).

Potential Health Effect(s): No further relevant information; classification is not possible.

Specific Target Organ Toxicity - Repeated Exposure

21645-51-2 Aluminum hydroxide

STOT-Repeated Target: None (rat) (OECD TG 407; neat substance; 28 days; oral)
NOAEL (male rats) = 302 mg/kg bw/day: No mortality or any adverse effect was observed at daily doses up to 302 mg/kg body weight to rats.
Reference: ECHA (2011).

8001-79-4 Castor oil

STOT-Repeated Target: None (Human) (After repeated inhalative exposure)
13 out of 28 employees (employment period varied from 2 months to 20 years; both males and females; 25 smokers) of a company involving importing, preparing, and distributing plant products of the substance exhibited symptoms including rhinitis, conjunctivitis, asthma, itch, and/or urticaria. However, there was no evidence that the symptoms were the substance or their smoking relevant. Thus, it was not possible to make a classification without further information.
Reference: NLM HSDB (2011).

92704-41-1 Calcined Kaolin

STOT-Repeated negative (rat)
(Read-across from supporting substance (structural analogue or surrogate; no identification available))
Target organ: None
NOAEL (Oral; OECD TG 453; 103 weeks; both males and females) = 1760 mg/kg bw/day: there was no systemic effect observed during the 103-week oral study. The NOAEL was outside of guidance value ranges; not classified.
Reference: ECHA (2011).

25265-71-8 Dipropylene glycol

STOT-Repeated (rat)
NOAEL (oral; male and female rats) = 470 and 530 mg/kg/day
Effects in liver (increased incidence of bile duct hyperplasia) and nose (increased incidence of olfactory epithelial atrophy and degeneration) were found at 3040 mg/kg/day (male rats) and 2330 mg/kg/day (female rats) group.
Reference: ECHA (2011).

1318-02-1 Zeolites

STOT-Repeated (rat)
Target organs: None
NOAEL (oral; 7 days; males and females) > 5000 mg/kg bw/day
NOAEL (oral; 90 days) = 5000 ppm; there were no differences observed between the test and control groups at 5000 ppm dose level.
The substance was therefore not classified as a target organ hazard upon repeated exposure.
Reference: IUCLID Dataset (2000).

68937-41-7 Triarylphosphate isopropylated

STOT-Repeated positive (Test species: n/a)
May cause damage to organs
Affected organs: adrenal gland
Route of exposure: Oral

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· **Potential Health Effect(s):** May cause damage to organs through prolonged or repeated exposure.

· **Aspiration Hazard**

21645-51-2 Aluminum hydroxide

Aspiration Hazard (No data available)

8001-79-4 Castor oil

Aspiration Hazard (No data available)

92704-41-1 Calcined Kaolin

Aspiration Hazard (No data available)

25265-71-8 Dipropylene glycol

Aspiration Hazard (No data available)

1318-02-1 Zeolites

Aspiration Hazard (No data available)

· **Potential Health Effect(s):** No relevant information; classification is not possible.

12 Ecological information

· **Aquatic Environmental Toxicity**

21645-51-2 Aluminum hydroxide

Algae Toxicity > 100 mg/l (*Selenastrum capricornum*) (NOEC (72 hrs); OECD TG 201)

Crustacean Toxicity (static) > 100 mg/l (*Daphnia magna* (water flea)) (NOEC (48 hrs); OECD TG 202)

Fish Toxicity > 100 mg/l (Brown trout (*Salmo trutta* or Sea trout)) (NOEC (96 hrs); OECD TG 203)

The acute No Observed Effect Concentration (NOEC) for algae, crustacea and fish are all over 100 mg/L; the substance is not classified as an aquatic environmental hazard.
Reference: IUCLID Dataset (2000).

8001-79-4 Castor oil

Algae Toxicity (No data available)

Crustacean Toxicity (No data available)

Fish Toxicity (No data available)

92704-41-1 Calcined Kaolin

Algae Toxicity > 100 mg/l (*Scenedesmus subspicatus*) (ErC50 (72 hrs); OECD TG 201)

Crustacean Toxicity > 1 mg/l (*Daphnia magna* (water flea)) (EC50 (96 hrs); OECD TG 202)

Fish Toxicity (*Oncorhynchus mykiss* (Rainbow trout))

LC50 (96 hrs; OECD TG 203) > 100 mg/L

NOEC(30 day; growth rate) = 100 mg/L

When considering all of the evidence, the substance is not classified as an environmental hazard.

Reference: ECHA (2011) and IUCLID Dataset (2000).

25265-71-8 Dipropylene glycol

Algae Toxicity > 100 mg/l (*Desmodesmus subspicatus*) (EC50 (72 hr); OECD TG 201)

1545 mg/L (EC50 (96 hr); growth rate; Calculated by ECOSAR; green algae)

Crustacean Toxicity (static) > 100 mg/l (*Daphnia magna* (water flea)) (EC50 (48 hrs); OECD TG 202)

8497 mg/L (LC50 (48 hr); Calculated by ECOSAR; daphnids)

694 mg/L (ChV (16 days); Calculated by ECOSAR; daphnids)

Fish Toxicity > 1000 mg/l (*Oryzias latipes* (Rice fish)) (LC50(96 hr); Read-across from 24800-44-0; OECD 203)

20889 mg/L (LC50 (96 hr); Calculated by ECOSAR; fresh water fish)

1878 mg/L (ChV (30 days); Calculated by ECOSAR; fresh water fish)

Due to the acute LC50>100 mg/L, the substance is not classified as an environmental hazard.

Reference: ECHA (2011).

1318-02-1 Zeolites

Algae Toxicity (*Chlorella vulgaris*)

EC50 (96 hrs; biomass) = 560 - 1800 mg/L

NOEC (18 days; growth rate) = 1 mg/L

(*Scenedesmus subspicatus*)

EC50 (96 hrs; OECD TG 201) = 18 mg/L

Crustacean Toxicity (*Daphnia magna* (water flea))

EC50 (24 hrs; OECD TG 202) = 1808 mg/L

EC50 (48 hrs) = 1000 - 1800 mg/L

NOEC (21 days; reproduction rate) = 10 mg/L

Fish Toxicity 1800 - 3200 mg/l (*Poecilia reticulata*) (LC50 (96 hrs) and LC50 (28 days))

1800 mg/l (*Brachydanio rerio* (Zebra fish)) (LC50 (96 hrs); OECD TG 203)

When considering all of the evidence, the substance is not classified as an aquatic environmental hazard.

Reference: IUCLID Dataset (2000).

· **Aquatic Environmental Toxicity Assessment:** No further relevant information; classification is not possible.

· **Degradability and Stability**

21645-51-2 Aluminum hydroxide

Biodegradation non-biodegrad. (Test species: n/a) (Due to being persistent)

Persistence (Test species: n/a) (The substance is persistent)

Reference: Canada DSL (2007).

Photodegradation (No data available)

Stability in water (No data available)

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8001-79-4 Castor oil

Biodegradation (No data available)
Persistence (Test species: n/a) (The substance is not persistent)
Reference: Canada DSL (2007).
Photodegradation 2.54E-10 cm³/molecule-sec (OH radical)
Reference: NLM HSDB (2011).
Stability in water (No data available)

92704-41-1 Calcined Kaolin

Biodegradation (No data available)
As an inorganic metal compound, biodegradation of the substance is not expected.
Persistence (Test species: n/a)
The substance is persistent.
Reference: Canada DSL (2007)
Photodegradation (No data available)
As an inorganic metal compound, photodegradation of the substance is not expected.
Stability in water (Test species: n/a) (Directive 84/449/EEC; abiotic; at 25 °C)
Half-life (PH= 4, 7 and 9) > 1 year; the substance is expected to be hydrolytically stable.
Reference: IUCLID Dataset (2000).

25265-71-8 Dipropylene glycol

Biodegradation non-biodegrad. (Test species: n/a) (OECD TG 302C; 4 weeks; Chemical conc.30 ppm)
Biodegradation (Direct from TOC, GC) = 16% and 9%
Biodegradation (Indirect from BOD) = 1%
The substance is not biodegradable.
Reference: CHRIP (2011).
Persistence (Test species: n/a)
The substance is not persistent.
Reference: Canada DSL (2007).
Photodegradation 9.97E-11 cm³/molecule-sec (OH radical) (Calculated by QSAR; at 25 °C)
Half-life (12-hr day; 1.5E6 OH/cm³) = 0.107 days = 1.287 hours
Reference: ECHA (2011).
Stability in water (No data available)
There is no hydrolyzable groups in the substance; thus, it is expected to be stable in water.

1318-02-1 Zeolites

Biodegradation non-biodegrad. (Test species: n/a)
As an insoluble inorganic metal compound, biodegradation of the substance is not expected.
Persistence (Test species: n/a)
As an insoluble inorganic metal compound, the substance is expected to be persistent in the environment.
Photodegradation (Test species: n/a)
As an insoluble inorganic metal compound, photodegradation of the substance is not expected.
Stability in water (Test species: n/a)
Hydrolysis has a half-life of about 1 - 2 months depending on pH values (lower pH values accelerate the hydrolysis).
Reference: OECD SIAM (2006).

Bioaccumulation and Distribution

21645-51-2 Aluminum hydroxide

LogPow (No data available)
BCF (Test species: n/a) (The substance is not bioaccumulative)
Reference: Canada DSL (2007).
Koc (No data available)

8001-79-4 Castor oil

LogPow (No data available)
BCF (Test species: n/a) (The substance is not bioaccumulative)
Reference: Canada DSL (2007).
Koc (No data available)

92704-41-1 Calcined Kaolin

LogPow (Not applicable)
BCF (No data available)
The substance is not bioaccumulative.
Reference: Canada DSL (2007).
Koc (No data available)

25265-71-8 Dipropylene glycol

LogPow -1.486 (Test species: n/a)
Reference: OECD SIDS (2001).
BCF (Cyprinus carpio)
BCF (Chemical concentration: 3 mg/L; 6 weeks) = 0.3 - 1.4
BCF (Chemical concentration: 0.3 mg/L; 6 weeks) < 4.6
The substance is non or low bioaccumulative in aquatic environment.
Reference: CHRIP (2011).
Koc < 1.6 L/kg (Test species: n/a)
Reference: ECHA (2011).

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LogPow	(No data available)
BCF	(No data available) The substance is not bioaccumulative. Reference: OECD SIAM (2006).
Koc	(No data available)

 · **Degradability and Bioaccumulation Assessment:** Non-rapidly degradable, and low bioaccumulative.

13 Disposal considerations

- **Hazardous Waste List**
 - **Description:** It may be necessary to contain and dispose of the substance/mixture as a hazardous waste.
 - **Waste Treatment Recommendation:**
Generation of waste should be avoided or minimized wherever possible.
Chemical waste, even small quantities, is neither allowed to be poured down drains, sewage system or waterways; nor disposed with household garbage.
Dispose of contents/containers in accordance with local, regional, national, and international regulations.
- **Unused and Uncontaminated Packagings**
 - **Recommendation** Dispose of according to your local waste regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | - |
| · DOT, ADR, IMDG, IATA | - |
| · Transport hazard class(es) | - |
| · ADR, IMDG, IATA | - |
| · Class | - |
| · Packing group | - |
| · ADR, IMDG, IATA | - |
| · Environmental Hazards: | Not applicable. |
| · Special Precautions: | Not applicable. |
| · Transport in Bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | - |

15 Regulatory information

- **USA Regulation Lists**
 - **SARA (Superfund Amendments and Reauthorization Act of 1986)**

 · **Section 302 (Extremely Hazardous Substances)**

None of the ingredients is listed.

 · **Section 313 (Toxics Release Inventory (TRI) reporting)**

None of the ingredients is listed.

 · **Section 311/312 (Hazardous Chemical Inventory Reporting)**

1333-86-4	Carbon black	A, C	0.1-1%
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 · **Hazard Abbreviations for SARA 311/312**

A - Acute Health Hazard
 C - Chronic Health Hazard
 F - Fire Hazard
 R - Reactive Hazard
 S - Sudden Release of Pressure Hazard

 · **TSCA (Toxic Substances Control Act)**

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8001-79-4	Castor oil
92704-41-1	Calcined Kaolin
25265-71-8	Dipropylene glycol
1318-02-1	Zeolites
68937-41-7	Triarylphosphate isopropylated
68333-79-9	Ammonium Polyphosphate
1333-86-4	Carbon black
112945-52-5	silicon dioxide amorphous
1317-70-0	Anatase

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· Proposition 65
· Chemicals Known to Cause Cancer

1333-86-4	Carbon black	
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· Chemicals Known to Cause Reproductive Toxicity for Females

None of the ingredients is listed.

· Chemicals Known to Cause Reproductive Toxicity for Males

None of the ingredients is listed.

· Chemicals Known to Cause Developmental Toxicity

None of the ingredients is listed.

· Carcinogenic Categories
· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

1318-02-1	Zeolites	3
112945-52-5	silicon dioxide amorphous	3

· NTP (National Toxicology Program)

None of the ingredients is listed.

· TLV (Threshold Limit Value Established by ACGIH)

1333-86-4	Carbon black	A4
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· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· International Regulation Lists
· Canadian Domestic Substance Listings:

21645-51-2	Aluminum hydroxide
8001-79-4	Castor oil
92704-41-1	Calcined Kaolin
25265-71-8	Dipropylene glycol
1318-02-1	Zeolites
68937-41-7	Triarylphosphate isopropylated
68333-79-9	Ammonium Polyphosphate
1333-86-4	Carbon black
112945-52-5	silicon dioxide amorphous

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

8001-79-4	Castor oil
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· Chinese Chemical Inventory of Existing Chemical Substances:

21645-51-2	Aluminum hydroxide
8001-79-4	Castor oil
92704-41-1	Calcined Kaolin
25265-71-8	Dipropylene glycol
1318-02-1	Zeolites
68937-41-7	Triarylphosphate isopropylated
68333-79-9	Ammonium Polyphosphate
1333-86-4	Carbon black
112945-52-5	silicon dioxide amorphous
1317-70-0	Anatase

· Japanese Existing and New Chemical Substance List:

21645-51-2	Aluminum hydroxide
92704-41-1	Calcined Kaolin
25265-71-8	Dipropylene glycol
1318-02-1	Zeolites
68333-79-9	Ammonium Polyphosphate
1333-86-4	Carbon black
112945-52-5	silicon dioxide amorphous
1317-70-0	Anatase

· Korean Existing Chemical Inventory:

21645-51-2	Aluminum hydroxide
8001-79-4	Castor oil
92704-41-1	Calcined Kaolin
25265-71-8	Dipropylene glycol
1318-02-1	Zeolites
68937-41-7	Triarylphosphate isopropylated
68333-79-9	Ammonium Polyphosphate

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1333-86-4	Carbon black
112945-52-5	silicon dioxide amorphous
1317-70-0	Anatase
European Pre-registered substances:	
21645-51-2	Aluminum hydroxide
8001-79-4	Castor oil
92704-41-1	Calcined Kaolin
25265-71-8	Dipropylene glycol
1318-02-1	Zeolites
68937-41-7	Triarylphosphate isopropylated
68333-79-9	Ammonium Polyphosphate
1333-86-4	Carbon black
112945-52-5	silicon dioxide amorphous
1317-70-0	Anatase
REACH - Substances of Very High Concern (SVHC) List:	
None of the ingredients is listed.	
Restriction of Hazardous Substances Directive (RoHS) list:	
None of the ingredients is listed.	

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department Issuing (M)SDS:** Product Safety Department
- **Contact:** msds@resinlab.com

- **Abbreviations and acronyms:**

- ACGIH: American Conference of Governmental Industrial Hygienists
- ACToR: US EPA Aggregated Computational Toxicology Resource
- ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road
- BCF: Bioconcentration Factor
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- CCRIS: US NLM TOXNET Chemical Carcinogenesis Research Information System
- CHRIP: Japan NITE Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk Information Platform
- DOT: US Department of Transportation
- DSL: Canada Domestic Substance List
- ESIS: European Chemical Substances Information System
- HMIS: US National Paint & Coatings Association (NPCA) Hazardous Materials Identification System
- HSDB: US NLM TOXNET Hazardous Substances Databank
- HSNO CCID: New Zealand Hazardous Substances and New Organisms Chemical Classification Information Database
- IARC: International Agency for Research on Cancer developed by United Nations World Health Organisation (WHO)
- IATA-DGR: Dangerous Goods Regulations (DGR) by the International Air Transport Association (IATA)
- ICAO-TI: Technical Instructions (TI) by the International Civil Aviation Organization (ICAO)
- ICSC: International Chemical Safety Cards
- IMDG: International Maritime Dangerous Goods; the principal international rules for International Carriage of Dangerous Goods by SEA under the Recommendations on the Transport of Dangerous Goods by United Nations (RTDG)
- Koc: Partition coefficient, soil Organic Carbon to water
- LC50/LD50: Lethal Concentration/Dose, 50 percent
- N/a: Not available or Not applicable
- NFPA: US National Fire Protection Association
- NIOSH: US National Institute of Occupational Safety and Health
- NITE: National Institute of Technology and Evaluation, Japan
- OECD: Organisation for Economic Co-operation and Development
- OSHA: US Occupational Safety and Health Administration
- P: Marine Pollutant
- RCRA: Resource Conservation and Recovery Act (USA)
- REACH: EU Registry, Evaluation and Authorisation of Chemicals
- RID: the Regulations Concerning the International Carriage of Dangerous Goods by Rail; published by the Central Office for International Carriage by Rail (OTIF)
- RTDG: the Recommendations on the Transport of Dangerous Goods by United Nations (UN)
- RTECS: US Registry of Toxic Effects of Chemical Substances
- SARA: US Superfund Amendments and Reauthorization Act
- SIDS: OECD existing chemicals Screening Information Data Sets
- SIDS SIAM(R): SIDS Initial Assessment Meetings(Reports)
- SVHC: EU ECHA Substance of Very High Concern
- TEEL: Temporary Emergency Exposure Limit developed by US Subcommittee on Consequence Assessment and Protective Actions (SCAPA) of US Department of Energy (DOE)
- TOXLINE: US NLM bibliographic database search system
- TSCA: US Toxic Substance Control Act
- **Date of preparation / last revision** 12/02/2015 / -