Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006) and its modifications

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
D104, All Purpose Cleaner Plus (22-90B): D10401, D10405, D10425, D10455

Product Identification Numbers
14-1000-8781-7

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Automotive

1.3. Details of the supplier of the safety data sheet
ADDRESS:

E Mail:
Website:

1.4. Emergency telephone number

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Substance or Mixture Corrosive to Metals, Category 1 - Met. Corr. 1; H290
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
Danger

Symbols:
GHS05 (Corrosion) | GHS07 (Exclamation mark) |

Pictograms

HAZARD STATEMENTS:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS
General:

P102	Keep out of reach of children.

Prevention:

P234	Keep only in original packaging.
P260E	Do not breathe vapor or spray.

Response:

P303 + P361 + P353A	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P310	Immediately call a POISON CENTER or doctor/physician.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH208	Contains Oils, Orange. | d-Limonene. May produce an allergic reaction.

Contains 2% of components with unknown hazards to the aquatic environment.

Notes on labelling:
Updated per Regulation (EC) No. 648/2004 on detergents.
Ingredients required per 648/2004: <5%: Non-ionic surfactants, EDTA and salts thereof, cationic surfactant. Contains: Perfumes, d-limonene, linalool.
H314 based on pH. H335 based on test data.

2.3. Other hazards

May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	EC No.	REACH Registration No.	% by Wt	Classification
Non-hazardous Ingredients	Mixture			75 - 95	Substance not classified as hazardous
Alcohols, C7-21, ethoxylated	68991-48-0			1 - 5	**EUH066**, EUH066
Potassium Silicate	1312-76-1	215-199-1		0.5 - 1.5	**Met. Corr. 1**, H290; **Acute Tox. 4**, H302; **Skin Corr. 1C**, H314; **STOT SE 3**, H335
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3			0.5 - 1.5	**Acute Tox. 4**, H302; **Skin Irrit. 2**, H315; **Eye Dam. 1**, H318
Tetrasodium EDTA	64-02-8	200-573-9		0.5 - 1.5	**Acute Tox. 4**, H302; **Eye Dam. 1**, H318
Oils, Orange	8008-57-9			0.05 - 0.5	**Flam. Liq. 3**, H226; **Asp. Tox. 1**, H304; **Skin Irrit. 2**, H315; **Skin Sens. 1**, H317; **Aquatic Acute 1**, H400,M=1; **Aquatic Chronic 2**, H411
Potassium Hydroxide	1310-58-3	215-181-3		< 0.5	**Acute Tox. 3**, H301; **Skin Corr. 1A**, H314 **Met. Corr. 1**, H290
d-Limonene	5989-27-5	227-813-5	01-2119519230-54,01-2119529223-47	< 0.3	**Flam. Liq. 3**, H226; **Skin Irrit. 2**, H315; **Skin Sens. 1**, H317; **Aquatic Acute 1**, H400,M=1; **Aquatic Chronic 1**, H410,M=1 - Nota C

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. Get immediate medical attention.

Skin Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Rinse mouth. Do not induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Advice for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies

of water.

6.3. Methods and material for containment and cleaning up
Contain spill. For large spills, if necessary, get assistance from professional spill clean up team. For small spills, carefully neutralize spill by adding appropriate dilute acid such as vinegar. Work slowly to avoid boiling or spattering. Continue to add neutralizing agent until reaction stops. Let cool before collecting. Or use a commercially available caustic (alkaline or basic) spill clean-up kit. Follow kit directions exactly. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Clean up residue with water. Cover, but do not seal for 48 hours. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep out of reach of children. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep container tightly closed. Store in a corrosive resistant container with a resistant inner liner. Store away from acids. Store away from oxidizing agents.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Potassium Hydroxide	1310-58-3	Greece OELs	TWA(8 hours):2 mg/m3;STEL(15 minutes):2 mg/m3	

Greece OELs : Greece. OELs (Decree No. 90/1999, as amended)
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Full Face Shield
Indirect Vented Goggles

Applicable norms/standards
Use eye/face protection conforming to EN 166

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended:

Material	**Thickness (mm)**	**Breakthrough Time**
Butyl Rubber	No data available	No data available
Polymer laminate	No data available	No data available

Applicable norms/standards
Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Boots - Neoprene
Coveralls - Disposable, laminate

Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable norms/standards
Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance/Odor	Sweet odor
Odor threshold	*No Data Available*
pH	13.5
Boiling point/boiling range	> 100 ºC
Melting point	*No Data Available*
Flammability (solid, gas)	Not Applicable
Explosive properties:	Not Classified
Oxidising properties:	Not Classified
Flash Point	Flash point > 93 °C (200 °F)
Autoignition temperature	*No Data Available*
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	*No Data Available*
Relative Density	1.03 [*Ref Std:*WATER=1]
Water solubility	Complete
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Evaporation rate	*No Data Available*
Vapor Density	*No Data Available*

Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Density	1.03 g/ml

9.2. Other information

EU Volatile Organic Compounds	*No Data Available*

SECTION 10: Stability and reactivity

10.1. Reactivity
This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
Strong oxidizing agents
Strong acids

10.6. Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
Respiratory Tract Corrosion: Signs/symptoms may include nasal discharge, severe nose and throat pain, chest tightness and pain, coughing up blood, wheezing, and breathlessness, possibly progressing to respiratory failure.

Skin Contact:
Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:
Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or

the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Alcohols, C7-21, ethoxylated	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Alcohols, C7-21, ethoxylated	Ingestion	Rat	LD50 > 2,000 mg/kg
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Rabbit	LD50 > 2,000 mg/kg
ETHOXYLATED C9-11 ALCOHOLS	Ingestion	Rat	LD50 1,378 mg/kg
Tetrasodium EDTA	Ingestion	Rat	LD50 1,658 mg/kg
Potassium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Potassium Silicate	Ingestion	Rat	LD50 500 mg/kg
Oils, Orange	Inhalation-Vapor (4 hours)	Mouse	LC50 > 3.14 mg/l
Oils, Orange	Dermal	Rabbit	LD50 > 5,000 mg/kg
Oils, Orange	Ingestion	Rat	LD50 4,400 mg/kg
d-Limonene	Inhalation-Vapor (4 hours)	Mouse	LC50 > 3.14 mg/l
d-Limonene	Dermal	Rabbit	LD50 > 5,000 mg/kg
d-Limonene	Ingestion	Rat	LD50 4,400 mg/kg
Potassium Hydroxide	Dermal	Rabbit	LD50 > 1,260 mg/kg
Potassium Hydroxide	Ingestion	Rat	LD50 273 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	In vitro data	Corrosive
Alcohols, C7-21, ethoxylated	Not available	No significant irritation
ETHOXYLATED C9-11 ALCOHOLS	Rabbit	Irritant
Potassium Silicate	Rabbit	Corrosive
Oils, Orange	Rabbit	Mild irritant
d-Limonene	Rabbit	Mild irritant
Potassium Hydroxide	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Overall product	similar health hazards	Corrosive
Alcohols, C7-21, ethoxylated	Not available	Moderate irritant
ETHOXYLATED C9-11 ALCOHOLS	Professional judgement	Corrosive
Potassium Silicate	Rabbit	Corrosive
Oils, Orange	Rabbit	Mild irritant
d-Limonene	Rabbit	Mild irritant
Potassium Hydroxide	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
Alcohols, C7-21, ethoxylated	Guinea pig	Not classified
ETHOXYLATED C9-11 ALCOHOLS	Guinea pig	Not classified
Potassium Silicate	Mouse	Not classified
Oils, Orange	Mouse	Sensitizing
d-Limonene	Mouse	Sensitizing

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
ETHOXYLATED C9-11 ALCOHOLS	In Vitro	Not mutagenic
Potassium Silicate	In Vitro	Not mutagenic
Potassium Silicate	In vivo	Not mutagenic
Oils, Orange	In Vitro	Not mutagenic
Oils, Orange	In vivo	Not mutagenic
d-Limonene	In Vitro	Not mutagenic
d-Limonene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Oils, Orange	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
d-Limonene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Not classified for female reproduction	Rat	NOAEL 250 mg/kg/day	2 generation
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Not classified for development	Rat	NOAEL 250 mg/kg/day	2 generation
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Not classified for male reproduction	Rat	NOAEL 100 mg/kg/day	2 generation
Potassium Silicate	Ingestion	Not classified for development	Mouse	NOAEL 200 mg/kg/day	during gestation
Oils, Orange	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	premating & during gestation
Oils, Orange	Ingestion	Not classified for development	Multiple animal	NOAEL 591 mg/kg/day	during organogenesis

			species		
d-Limonene	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	premating & during gestation
d-Limonene	Ingestion	Not classified for development	Multiple animal species	NOAEL 591 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Overall product	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	Irritation Positive	
Alcohols, C7-21, ethoxylated	Ingestion	central nervous system depression	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL NA	
ETHOXYLATED C9-11 ALCOHOLS	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Potassium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Oils, Orange	Ingestion	nervous system	Not classified		NOAEL Not available	
d-Limonene	Ingestion	nervous system	Not classified		NOAEL Not available	
Potassium Hydroxide	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
ETHOXYLATED C9-11 ALCOHOLS	Dermal	kidney and/or bladder | hematopoietic system	Not classified	Rat	NOAEL 125 mg/kg/day	13 weeks
Potassium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Potassium Silicate	Ingestion	endocrine system | blood	Not classified	Rat	NOAEL 804 mg/kg/day	3 months
Potassium Silicate	Ingestion	heart | liver	Not classified	Rat	NOAEL 1,259 mg/kg/day	8 weeks
Oils, Orange	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 75 mg/kg/day	103 weeks
Oils, Orange	Ingestion	liver	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
Oils, Orange	Ingestion	heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune	Not classified	Rat	NOAEL 600 mg/kg/day	103 weeks

		system | muscles | nervous system | respiratory system				
d-Limonene	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 75 mg/kg/day	103 weeks
d-Limonene	Ingestion	liver	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
d-Limonene	Ingestion	heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles | nervous system | respiratory system	Not classified	Rat	NOAEL 600 mg/kg/day	103 weeks

Aspiration Hazard

Name	Value
Oils, Orange	Aspiration hazard
d-Limonene	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available

Material	CAS #	Organism	Type	Exposure	Test Endpoint	Test Result
Alcohols, C7-21, ethoxylated	68991-48-0		Data not available or insufficient for classification			
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	8.5 mg/l
ETHOXYLATED C9-11	68439-46-3	Green algae	Experimental	72 hours	Effect Concentration 50%	45 mg/l

ALCOHOLS						
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3	Water flea	Experimental	48 hours	Effect Concentration 50%	2.686 mg/l
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3	Fathead Minnow	Experimental	30 days	No obs Effect Conc	0.73 mg/l
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3	Green Algae	Experimental	72 hours	No obs Effect Conc	1.2 mg/l
Potassium Silicate	1312-76-1	Green algae	Estimated	72 hours	Effect Concentration 50%	>345.4 mg/l
Potassium Silicate	1312-76-1	Water flea	Estimated	48 hours	Effect Concentration 50%	1,700 mg/l
Potassium Silicate	1312-76-1	Zebra Fish	Estimated	96 hours	Lethal Concentration 50%	1,108 mg/l
Potassium Silicate	1312-76-1	Green algae	Estimated	72 hours	No obs Effect Conc	35 mg/l
Tetrasodium EDTA	64-02-8	Bluegill	Experimental	96 hours	Lethal Concentration 50%	1,030 mg/l
Tetrasodium EDTA	64-02-8	Water flea	Experimental	24 hours	Effect Concentration 50%	1,033 mg/l
Tetrasodium EDTA	64-02-8	Water flea	Estimated	21 days	No obs Effect Conc	29 mg/l
Oils, Orange	8008-57-9	Fathead Minnow	Estimated	96 hours	Lethal Concentration 50%	0.702 mg/l
Oils, Orange	8008-57-9	Green algae	Estimated	72 hours	Effect Concentration 50%	0.32 mg/l
Oils, Orange	8008-57-9	Water flea	Estimated	48 hours	Effect Concentration 50%	0.307 mg/l
Oils, Orange	8008-57-9	Fathead Minnow	Estimated	8 days	No obs Effect Conc	0.059 mg/l
Oils, Orange	8008-57-9	Green algae	Estimated	72 hours	Effect Concentration 10%	0.174 mg/l
Oils, Orange	8008-57-9	Water flea	Estimated	21 days	No obs Effect Conc	0.08 mg/l
Potassium Hydroxide	1310-58-3		Data not available or insufficient for classification			
d-Limonene	5989-27-5	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	0.702 mg/l
d-Limonene	5989-27-5	Green Algae	Experimental	72 hours	Effect Concentration 50%	0.32 mg/l
d-Limonene	5989-27-5	Water flea	Experimental	48 hours	Effect Concentration 50%	0.307 mg/l
d-Limonene	5989-27-5	Green Algae	Experimental	72 hours	Effect Concentration 10%	0.174 mg/l
d-Limonene	5989-27-5	Water flea	Experimental	21 days	No obs Effect Conc	0.08 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Alcohols, C7-21, ethoxylated	68991-48-0	Data not availbl-insufficient			N/A	
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3	Experimental Biodegradation	28 days	Biological Oxygen Demand	88 % weight	OECD 301F - Manometric Respiro
Potassium Silicate	1312-76-1	Data not availbl-insufficient			N/A	
Tetrasodium EDTA	64-02-8	Estimated Biodegradation	28 days	Biological Oxygen Demand	0 % BOD/ThBOD	OECD 301D - Closed Bottle Test

Oils, Orange	8008-57-9	Estimated Photolysis		Photolytic half-life (in air)	2.5 hours (t 1/2)	Other methods
Oils, Orange	8008-57-9	Estimated Biodegradation	14 days	Biological Oxygen Demand	98 % BOD/ThBOD	OECD 301C - MITI (I)
Potassium Hydroxide	1310-58-3	Data not availbl-insufficient			N/A	
d-Limonene	5989-27-5	Experimental Biodegradation	14 days	Biological Oxygen Demand	98 % BOD/ThBOD	OECD 301C - MITI (I)

12.3. Bioaccumulative potential

Material	Cas No.	Test Type	Duration	Study Type	Test Result	Protocol
Alcohols, C7-21, ethoxylated	68991-48-0	Experimental BCF-Carp	72 hours	Bioaccumulation Factor	310	
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3	Estimated Bioconcentration		Bioaccumulation Factor	31	Est: Bioconcentration factor
Potassium Silicate	1312-76-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Tetrasodium EDTA	64-02-8	Estimated BCF - Bluegill	28 days	Bioaccumulation Factor	1.8	Bioconcentration: Flow-through
Oils, Orange	8008-57-9	Estimated Bioconcentration		Bioaccumulation Factor	2100	Other methods
Potassium Hydroxide	1310-58-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
d-Limonene	5989-27-5	Estimated Bioconcentration		Bioaccumulation Factor	2100	Est: Bioconcentration factor

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Other adverse effects
No information available

The surfactant(s) contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of the manufacturer, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/CE and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor

EU waste code (product as sold)

200129* Detergents containing dangerous substances

SECTION 14: Transportation information

ADR: UN1814; Sodium Hydroxide Solution; 8; III; C5
IATA: UN1814; Sodium Hydroxide Solution; 8; III
IMDG: UN1814; Sodium Hydroxide Solution; 8; III; FA, SB

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Carcinogenicity

Ingredient	C.A.S. No.	Classification	Regulation
d-Limonene	5989-27-5	Gr. 3: Not classifiable	International Agency for Research on Cancer

Global inventory status

Contact manufacturer for more information The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapor.
H290	May be corrosive to metals.

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
No revision information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Meguiar's, Inc. Greece SDSs are available at