SAFETY DATA SHEET
iTag Solution 2

SECTION 1: IDENTIFICATION

Product identifier
Trade name: iTag Solution 2 Phosphate free alkaline detergent in water
Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture Washing liquid

Details of the supplier of the safety data sheet
Company:
CEM Corporation
3100 Smith Farm Road
Matthews, NC 28104

Telephone: 704-821-7015
Fax: 704-821-7894

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H361fd, H411.
The following classifications are applicable only to OSHA (USA) regulations and not the specific CLP regulation: H361.

Repr. 2 H361: Suspected of damaging fertility or the unborn child.

health hazard
Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child

environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects

Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
Xn; Harmful
R62-63: Possible risk of impaired fertility. Possible risk of harm to the unborn child.
Xi; Irritant
R36/38: Irritating to eyes and skin.
N; Dangerous for the environment
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Information concerning particular hazards for human and environment:
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

Label elements
Labelling according to Regulation (EC) No 1272/2008
The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).


GHS07


GHS08


GHS09

Signal word Warning

Hazard-determining components of labelling:
Nonylphenol, branched, ethoxylated

Hazard statements
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H361.
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H361fd, H411.
H361: Suspected of damaging fertility or the unborn child.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P281 Use personal protective equipment as required.
P202 Do not handle until all safety precautions have been read and understood.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of water.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description:

WHMIS-symbols:
D2A - Very toxic material causing other toxic effects

NFPA ratings (scale 0 - 4)
Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = *1
Fire = 0
Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

HMIS Long Term Health Hazard Substances
68412-54-4 Nonylphenol, branched, ethoxylated

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures
Description: Mixture of substances listed below with nonhazardous additions.
Dangerous components:

CAS: 68412-54-4	Nonylphenol, branched, ethoxylated	10-25%
NLP: 500-209-1	Xn R62-63; Xi R36/38; N R50/53	
	Repr. Cat. 3	
	Repr. 2, H361fd	
	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
	Skin Irrit. 2, H315; Eye Irrit. 2, H319	

SVHC
68412-54-4 Nonylphenol, branched, ethoxylated
Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: FIRST-AID MEASURES

Description of first aid measures
General information: No special measures required.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately rinse with water.
If skin irritation is experienced, consult a doctor.
After eye contact: Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed
Irritant to skin and mucous membranes.
Irritant to eyes.
Coughing
Nausea
Hazards Suspected of damaging fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
For safety reasons unsuitable extinguishing agents: None.

Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.

Advice for firefighters
Protective equipment: Wear self-contained respiratory protective device.
Wear fully protective suit.
Additional information: No further relevant information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.

Environmental precautions:
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.

Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Prevent formation of aerosols.
Use only in well ventilated areas.
Wash hands before breaks and at the end of work.
· Information about fire - and explosion protection: No special measures required.

Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles: No special requirements.
· Information about storage in one common storage facility: Store away from foodstuffs.
· Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Protect from frost.

Specific end use(s) No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

Control parameters
· Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **DNELs** No further relevant information available.
· **PNECs** No further relevant information available.
· **Additional information:** The lists valid during the making were used as basis.

Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
Pregnant women should strictly avoid inhalation or skin contact.
Use only in well ventilated areas.
· **Respiratory protection:**
Not required under normal conditions of use.
Use suitable respiratory protective device when aerosol or mist is formed.
For spills, respiratory protection may be advisable.
· **Protection of hands:**


Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Safety glasses
· **Body protection:** Protective work clothing
· **Limitation and supervision of exposure into the environment**
No further relevant information available.
· **Risk management measures**
See Section 7 for additional information.
No further relevant information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

· General Information	
· Appearance:	
Form:	Liquid
Colour:	Clear
· Odour:	Faint, aromatic
· Odour threshold:	Not determined.
· pH-value:	5,00 - 9,00
· Change in condition	
Melting point/Melting range:	-4 °C (25 °F)
Boiling point/Boiling range:	>200 °C (>392 °F)
· Flash point:	PMCC
Flash Point Range:	535-555 ° F / 279-291 °C.
· Flammability (solid, gaseous):	Not applicable.
· Auto/Self-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure:	Not determined.
· Density at 20 °C (68 °F):	1,06 g/cm³ (8,846 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.

Other information No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity
Chemical stability
· Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.
Possibility of hazardous reactions
Reacts with strong acids.
Reacts with strong alkali.
Conditions to avoid No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects
· Acute toxicity:
· LD/LC50 values relevant for classification:
68412-54-4 Nonylphenol, branched, ethoxylated
Oral LD50 4000 mg/kg (rat)
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitisation:** No sensitising effects known.
· **Additional toxicological information:** The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant
Suspected of damaging fertility or the unborn child.
· **Repeated dose toxicity:** May cause damage to organs through prolonged or repeated exposure.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):** Repr. 2

SECTION 12: ECOLOGICAL INFORMATION (NON-MANDATORY)

Toxicity
· Aquatic toxicity:
The material is harmful to the environment.
Toxic for aquatic organisms
Persistence and degradability No further relevant information available.
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Toxic for fish
· **Additional ecological information:**
· **General notes:** Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies. Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
Results of PBT and vPvB assessment
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
Other adverse effects: No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS (NON-MANDATORY)

Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: TRANSPORT INFORMATION (NON-MANDATORY)

UN-Number
· **DOT** UN3082 Classification as a MARINE POLLUTANT is based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.
· **ADR, IMDG, IATA UN3082**
UN proper shipping name


Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 L (1.3gal).
· **DOT** Environmentally hazardous substances, liquid, n.o.s. (Nonylphenol, branched, ethoxylated)
· **ADR** 3 0 8 2 E N V I R O N M E N T A L L Y H A Z A R D O U S SUBSTANCE, LIQUID, N.O.S. (Nonylphenol, branched, ethoxylated)
· **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nonylphenol, branched, thoxylated), MARINE POLLUTANT
· **IATA** Environmentally hazardous substance, liquid, n.o.s. (Nonylphenol, branched, ethoxylated)

Transport hazard class(es)
· **DOT, IMDG, IATA**


· **Class** 9 Miscellaneous dangerous substances and articles.
· **Label** 9
· **ADR**


· **Class** 9 (M6) Miscellaneous dangerous substances and articles.
· **Label** 9

Packing group
· **DOT, ADR, IMDG, IATA** III

Environmental hazards: Product contains environmentally hazardous substances: Nonylphenol, branched, ethoxylated
· **Marine pollutant:** Yes
Symbol (fish and tree)
· **Special marking (ADR):** Symbol (fish and tree)
· **Special marking (IATA):** Symbol (fish and tree)

Special precautions for user Warning: Miscellaneous dangerous substances and articles.
· **Danger code (Kemler):** 90
· **EMS Number:** F-A,S-F

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
· **Transport/Additional information:**
· **ADR**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ) Code:** E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
· **Transport category** 3
· **Tunnel restriction code** E
· **IMDG**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ) Code:** E1
Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":** U N 30 82 , EN VI R O N ME N T AL LY H AZ AR D O U S SUBSTANCE, LIQUID, N.O.S. (Nonylphenol, branched, ethoxylated), 9, III

SECTION 15: REGULATORY INFORMATION (NON-MANDATORY)

Safety, health and environmental regulations/legislation specific for the substance or mixture
· United States (USA)
· SARA
· **Section 355 (extremely hazardous substances):**
None of the ingredients are listed.
· **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.
· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.
· **Proposition 65 (California):**
· **Chemicals known to cause cancer:**
Present in trace quantities.
123-91-1 1,4-dioxane
75-21-8 ethylene oxide
· **Chemicals known to cause reproductive toxicity for females:**
Present in trace quantities.
75-21-8 ethylene oxide
· **Chemicals known to cause reproductive toxicity for males:**
Present in trace quantities.
75-21-8 ethylene oxide
· **Chemicals known to cause developmental toxicity:**
Present in trace quantities.
75-21-8 ethylene oxide
· **Carcinogenic Categories**
· **EPA (Environmental Protection Agency)**
None of the ingredients are listed.
· **IARC (International Agency for Research on Cancer)**
None of the ingredients are listed.
· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients are listed.
· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients are listed.
· **Canada**
· **Canadian Domestic Substances List (DSL)**
All ingredients are listed.
· **Canadian Ingredient Disclosure list (limit 0.1%)**
None of the ingredients are listed.
· **Canadian Ingredient Disclosure list (limit 1%)**
None of the ingredients are listed.
· **Other regulations, limitations and prohibitive regulations**
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· Substances of very high concern (SVHC) according to REACH, Article 57
68412-54-4 Nonylphenol, branched, ethoxylated
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: OTHER INFORMATION

This information is presented in good faith and believed to be accurate as of the date shown. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

Relevant phrases
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
R36/38 Irritating to eyes and skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62 Possible risk of impaired fertility.
R63 Possible risk of harm to the unborn child.
Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the
International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2