



Shaw® R2X® Hard Surface Cleaner - Concentrate

SAFETY DATA SHEET

SECTION 1 – CHEMICAL AND COMPANY IDENTIFICATION:

Product Name:	R2X Hard Surface Cleaner - Concentrate	Date Printed:	7/24/2018
Product Use/Class:	Hard Surface, Laminate, Flooring Cleaner	Product ID:	S HSCC
Supplier:	Shield Industries, Inc.	Manufacturer:	Shield Industries, Inc.
Address:	131 Smokehill Lane Woodstock, GA 30188 - USA	Address:	131 Smokehill Lane Woodstock, GA 30188 - USA
Telephone:	770-517-6869	24 Hour Emergency Hotline:	800-535-5053

SECTION 2 – HAZARD IDENTIFICATION:

Physical hazards:	Not applicable	-----
Health hazards:	Acute Toxicity	Category 4
	Skin sensitization	Category 2
	Eye sensitization	Category 2
	Specific target organ toxicity, single exposure	Category 3

Environmental hazards: No data available.

OSHA defined hazards: Not classified.

Label elements:



Signal word: Warning

Hazard statement Harmful if swallowed, inhaled, or in contact with skin. (H302 + H312 + H332)
Causes skin irritation. (H315)
Causes serious eye irritation. (H319)
May cause respiratory irritation. (H335)

Precautionary statements:

Prevention: Wear protective gloves/protective clothing/eye protection/face protection. (P280)

Wash hands and exposed skin thoroughly after handling. (P264)
 Avoid breathing dust/fume/gas/mist/vapours/spray. (P261)
 Contaminated work clothing should not be allowed out of the workplace.

(P272)

Response: IF SWALLOWED: Get medical advice/attention. Do NOT Induce vomiting. (P301 + P313 + P331)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305 + P351 + P338)
 IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. (P304 + P341)
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. (P342 + P311)

Storage: Keep out of reach of children. (P102)

Disposal: Dispose of contents/container to an approved waste disposal plant. (P501)

Hazard(s) not otherwise classified (HNOC): None.

Supplemental information: None.

SECTION 3 COMPOSITION/INFORMATION ON COMPONENTS

<u>COMPONENTS</u>	<u>CAS NUMBER</u>	<u>%</u>
Water	7732-18-5	75 - 80 %
Proprietary ingredient(s)	Trade Secret*	4 - 5 %
Surfactant(s)	Trade Secret*	9 - 12 %
2-(2-Butoxyethoxy) ethanol	112-34-5	5 - 10 %
Tetrasodium EDTA	64-2-8	< 1.5 %
Fragrance Compound	N/A (Mixture)	< 1 %
Proprietary preservative	Trade Secret*	0.1 - 0.5 %
Colorant	Trade Secret*	< 0.01 %

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

Additional Information:

Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below:

Ethylene glycol n-butyl ether (CAS# 111-76-2)

SECTION 4 FIRST AID MEASURES

Inhalation: Move person to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If systems persist, contact a POISON CENTER or doctor/physician. If breathing stops, give artificial respiration.

- Skin contact:** If on skin, wash thoroughly with soap and water. If on clothes, remove clothing. Get medical attention if irritation or rash develops and persists.
- Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Keep eyes wide open and continue rinsing. Get immediate medical attention.
- Ingestion:** Keep respiratory tract clear. Do NOT induce vomiting. Aspiration hazard. Never give anything by mouth to an unconscious person. If conscious, give 8 to 16 ounces of water or milk to dilute substance. Seek medical attention immediately.

Most important symptoms/effects, acute and delayed:

- Eyes: Direct contact may cause irritation, including stinging, tearing, redness, and swelling.
- Skin: Prolonged or repeated contact may cause irritation, itching, redness, or de-fatting, leading to dryness. May be absorbed through the skin and cause effects similar to inhalation exposure.
- Inhalation: Organic solvent vapours or mists from this product may cause irritation of the nose mouth, throat and lungs. Breathing large amount of organic solvent vapours or mists may affect the central nervous system; causing headache, dizziness, nausea, confusion, loss of coordination, impaired judgment, or similar effects.
- Ingestion: Ingestion causes irritation of the mouth, throat, and stomach. Swallowing large amounts of organic solvents may affect the central nervous system, causing effects similar to inhalation exposure.

Indication of immediate medical attention and special treatment needed:

If ingested: Immediately seek medical attention. Provide general supportive measures and treat symptomatically.

If symptoms of inhalation exposure (noted above) are present: Immediately seek medical attention. Keep victim under observation. Symptoms may be delayed.

General information:

Move affected persons from dangerous area. Do not leave victim unattended. Ensure that medical personnel are aware of the material(s) involved. Show this safety data sheet to the doctor in attendance.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing media:

Non-combustible. Use media appropriate for surrounding fire.

Unsuitable extinguishing media:

Do not use water jet.

Specific hazards arising from the chemical:

Combustion or thermal decomposition will evolve toxic and/or irritant vapours. Forms fumes of oxides of carbon, nitrogen, and sulfur.

Special protective equipment and precautions for firefighters:

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and self-contained breathing apparatus (SCBA).

Fire-fighting equipment/instructions:

Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapour pressure build up.

Specific methods:

Evacuate and keep any non-responders away. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards:

None known.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not get in eyes. Avoid skin contact. Do not breathe vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

Environmental precautions:

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so. Inform appropriate managerial or supervisory personnel and authorities of all environmental releases.

Methods and materials for containment and cleaning up:

Contain spillages and then collect with sand, earth, diatomaceous earth, vermiculite, or any other suitable adsorbent material. Collect spillage. Transfer to a container for disposal or recovery. Following product recovery, flush area with water. If possible prevent water running into sewers. For waste disposal, see section 13 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Wear appropriate personal protective equipment. Smoking, eating and drinking should be prohibited in the application area. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. Use product in a well ventilated area only. Do not handle near an open flame, heat, sparks, or other source of ignition.

Advice on protection against fire and explosion:

None – Product is non-combustible

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place away from incompatible materials. Keep cool. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Avoid storing in the presence of oxidizing or reducing agents. Protect from sunlight. Do not store near an open flame, heat, sparks, or other source of ignition.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits:

US. ACGIH Threshold Limit Values

Components	CAS	Type	Value
2-(2-Butoxyethoxy) ethanol	112-34-5	TWA(8 hr.) Notation	20 ppm (97 mg/m ³) Skin

US. OSHA Limit Values

Components	CAS	Type	Value
2-(2-Butoxyethoxy) ethanol	112-34-5	TWA(8 hr.) Notation	50 ppm (240 mg/m ³) Skin

Appropriate engineering controls:

Provide sufficient mechanical ventilation (general and local exhaust) to maintain exposure below the level of overexposure from known, or apparent, adverse effects.

Individual protection measures, such as personal protective equipment:

Eye/face protection:

Wear safety glasses with side shields (or goggles). A splash shield is recommended when splashing is possible.

Hand protection:

Wear appropriate chemical resistant gloves (Butyl rubber, Neoprene, or Natural rubber) to minimize skin contact. Check with protective equipment manufacturer's data.

Skin protection/Other:

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection:

Not normally required. If workplace permissible exposure limits of product, or any component, are exceeded: Use NIOSH approved air supplied respirator in the absence of proper environmental controls. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions. (Consult your safety representative.) controls, or administrative controls, should be implemented to reduce exposure.

Thermal hazards:

Not normally required.

General hygiene considerations:

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

Environmental exposure controls:

Do not allow to enter drains, sewers or waterways. Avoid release to the environment. Material is very toxic to aquatic life with long lasting effects.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical state:	Liquid
Form:	Liquid
Color:	Clear green
Odor:	Characteristic, Sweet Fruity
Odor threshold:	Not available.
pH:	7.0 +/- 1.0
Melting point/freezing point:	Not available.
Initial boiling point and boiling range	Not determined.
Flash point:	> 200 °F (Tag closed cup)
Evaporation rate:	Approximately 1 (water = 1)
Flammability (solid, gas):	Not applicable.

Upper/lower flammability or explosive limits:

Flammability limit – lower (%):	0.85% (v) (2-(2-Butoxyethoxy) ethanol)
Flammability limit – upper (%):	24.6% (v) (2-(2-Butoxyethoxy) ethanol)
Explosive limit - lower (%):	Not available.
Explosive limit - upper (%):	Not available.
Vapor pressure:	0.06 mm Hg @ 68 °F (2-(2-Butoxyethoxy) ethanol)
Relative Vapor density:	Heavier than air.
Relative density:	1.02 +/- 0.02
Solubility (water):	Soluble
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature:	442 °F (2-(2-Butoxyethoxy) ethanol)
Decomposition temperature:	Not available.
Viscosity (kinematic cSt @ 40 °C):	Not available.
Other information:	None.

SECTION 10 STABILITY AND REACTIVITY

Reactivity:

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

Chemical stability:

Material is stable under normal conditions.

Possibility of hazardous reactions:

None anticipated.

Conditions to avoid:

Avoid contact with heat, ignition sources, and incompatible materials. Avoid concentrating by evaporation to dryness, as unstable peroxides may form.

Incompatible materials:

Strong oxidizing or reducing agents.

Hazardous decomposition products:

At temperatures over 200 C, or under fire conditions, thermal decomposition will evolve toxic and irritant vapours. Forms: oxides of carbon, nitrogen, and sulfur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Inhalation: May cause mild irritation to respiratory tract.

Skin contact: May cause skin irritation and/or dermatitis.

Eye contact: Vapors may cause irritation to the eyes

Symptoms related to the physical, chemical and toxicological characteristics:

Eye irritation: Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Skin irritation: May cause redness and/or degreasing of skin. May be absorbed through the skin

and cause effects similar to inhalation exposure.

Inhalation: Organic solvent vapours or mists from this product may cause irritation of the nose mouth, throat and lungs. Breathing large amount of organic solvent vapours or mists may affect the central nervous system; causing headache, dizziness, nausea,

confusion,

loss of coordination, impaired judgment, or similar effects.

Ingestion: Ingestion causes irritation of the mouth, throat, and stomach. Swallowing large amounts of organic solvents may affect the central nervous system, causing effects similar to inhalation exposure.

Information on toxicological effects:

Acute toxicity:

Components	CAS#	Test	Species	Test Results
2-(2-Butoxyethoxy) ethanol	112-34-5	Acute Oral LD50	Rat	5,080 mg/kg
		Acute Oral LD50	Mouse	2,406 mg/kg
		Acute Dermal LD50	Rabbit	2,467 mg/kg
Surfactant(s)	-----	Acute Oral LD50	Rat	7,200 mg/kg
		Acute Dermal LD50	Rabbit	> 2,000 mg/kg
Tetrasodium EDTA	8013-51-2	Acute Oral LD50	Rat	> 2,000 mg/kg

Skin corrosion/irritation:

May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation:

Causes serious eye irritation.

Respiratory or skin sensitization:

Respiratory sensitization:

Vapours may cause irritation.

Skin sensitization:

Not determined, however none of the components of this mixture are known, or suspected, skin sensitizers.

Germ cell mutagenicity:

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

Carcinogenicity:

None of the ingredients in this product are considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Not listed.

Repeated dose toxicity:

Component: 2-(2-Butoxyethoxy) ethanol
 Species: Rat
 Application Route: Oral (Drinking water.)
 NOAEL: 250 mg/kg/day
 Test Duration: 90 days

Component: 2-(2-Butoxyethoxy) ethanol
 Species: Rat
 Application Route: Dermal
 NOAEL: > 2,000 mg/kg/day
 Test Duration: 90 days

Component: 2-(2-Butoxyethoxy) ethanol
 Species: Rat
 Application Route: Inhalation
 NOAEL: 0.094 mg/l
 Test Duration: 90 days

Specific target organ toxicity - single exposure:

This mixture has not been tested. However, trace levels of Ethylene glycol N-butyl ether may be present within the mixture. Studies in rats and rabbits suggest that Ethylene glycol N-butyl ether may have hemolytic effects on red blood cells that eventually lead to further effects on the liver and kidneys. Their relevance to human metabolic mechanisms, expected occupational doses, or likely routes of exposure is not clear or confirmed.

Teratogenicity:

No data available.

Aspiration hazard:

Components within this product may present an aspiration hazard, however no specific data is available.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: Very toxic to aquatic life with long lasting effects.

Acute Toxicity:

Components/CAS	Test	Species	Test Results
2-(2-Butoxyethoxy) ethanol/ 112-34-5	Aquatic Fish LC50	Fish	1,300 mg/l, 96 hr.
	Aquatic Crustacea EC50	Water flea (Daphnia magna)	100 mg/l, 48 hr.
	Aquatic Plants EC50	Alga	100 mg/l, 96 hr.
Surfactant(s)/ Trade secret	Aquatic Fish LC50	Fish	>= 1,000 mg/l, 96 hr.
	Aquatic Crustacea EC50	Water flea (Daphnia magna)	1,000 mg/l, 48 hr.
	Aquatic Plants EC50	Alga	>= 230 mg/kg, 72 hr.
Tetrasodium EDTA/ 8013-51-2	Aquatic Fish LC50	Bull gill sunfish	760 mg/l, 96 hr.
	Aquatic Fish LC50	Fathead minnow	59.8 mg/l, 96 hr.

Long Term Toxicity:

No data available.

Persistence and degradability:

2-(2-Butoxyethoxy) ethanol:

Readily biodegradable (85%/ 28 days)

Bioaccumulative potential:

No data available.

Mobility in soil:

No data available.

Results of PBT and vPvB assessment:

No data available.

Other adverse effects:

None known.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment/disposal instructions:

Disposal should be in accordance with local, state, or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

Waste from residues / unused products:

Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Dispose of in accordance with local regulations.

Contaminated packaging:

Exercise caution as empty containers or liners may retain some product residues. Do not re-use empty containers. Do not burn, or use a cutting torch on, empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 TRANSPORT INFORMATION

DOT

UN number: Not applicable

UN proper shipping name: Cleaning compounds N.O.S.

Transport hazard class(es):

Class: Not applicable

Subsidiary risk: -

Label(s): Not applicable

Packing group: Not applicable

Special precautions for user:

Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Environmental hazards: No

Special provisions: None Assigned

Packaging exceptions:

None – Not classified as dangerous for transportation

Packaging bulk:

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not applicable

IATA

UN number: Not applicable
UN proper shipping name: Cleaning compounds N.O.S.
Transport hazard class(es):
 Class Not applicable
 Subsidiary risk -
 Label(s) Not applicable
Packing group Not applicable
Environmental hazards No
ERG Code Not applicable
Special precautions for user:
 Read safety instructions, SDS and emergency procedures before handling. Read
 Safety instructions, SDS and emergency procedures before handling.

Packaging bulk:
 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
 Not applicable

IMDG

UN number: Not applicable
UN proper shipping name: Cleaning compounds, n.o.s.
Transport hazard class(es):
 Class: Not applicable
 Subsidiary risk: -
 Label(s): Not applicable
 Packing group: Not applicable
 Environmental hazards:
 Marine pollutant: No
Special precautions for user:
 Read safety instructions, SDS and emergency procedures before handling. Read
 safety instructions, SDS and emergency procedures before handling.

Packaging bulk:
 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
 Not applicable

SECTION 15 REGULATORY INFORMATION

US federal regulations:

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List or polymer exempt.

CERCLA Hazardous Substance List (40 CFR 302.4)

Component:	CAS#	RQ
2-(2-Butoxyethoxy) ethanol	112-34-5	None

SARA 311/312 – Superfund Amendments and Reauthorization Act of 1986:

Hazard categories:

Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Sudden Release	No
Reactivity	No

SARA 313 – Toxic Chemicals (40 CFR 372.38(a)):

Certain glycol ethers category.

SARA 302/304 Threshold Planning Quantity:

Not regulated.

Other federal regulations:

Clean Air Act (CAA) Ozone-Depletion Potential:

This product neither contains, nor was manufactured with a Class I, or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A+B).

US state regulations

U.S. California Proposition 65:

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive effects.

SECTION 16 OTHER INFORMATION

NFPA RATING: HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

Personal protection rating to be supplied by user depending on use conditions.

PREPARATION INFORMATION:

DATE CREATED: 01/01/06 LAST REVISION: 07/20/2018

CREATED/REVISED BY: R. Lasnik

This information relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of this information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

End of SDS