# FRSC Chemical Solutions

# SAFETY DATA SHEET

#### 1. Identification

Product identifier Solder Seal/Gunk GP General Purpose Degreaser

Other means of identification

SDS number GP2A Part No. GP2A

Tariff code 3402.20.5100

Recommended use Degreaser

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name
Address
RSC Chemical Solutions
600 Radiator Road
Indian Trail, NC 28079

**United States** 

**Telephone** Customer Service: (704) 821-7643

Technical: (704) 684-1811

Hazardous to the aquatic environment, acute

Website www.rscbrands.com

E-mail Not available.

**Emergency phone number** Emergency Telephone: (303) 623-5716

Emergency Contact: RMPDC (877-740-5015)

# 2. Hazard(s) identification

Physical hazardsFlammable liquidsCategory 4Health hazardsSkin corrosion/irritationCategory 2Serious eye damage/eye irritationCategory 1Germ cell mutagenicityCategory 1BCarcinogenicityCategory 1B

hazard

OSHA defined hazards Not classified.

Label elements

**Environmental hazards** 



Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage. May cause genetic defects. May cause

cancer. Harmful to aquatic life.

**Precautionary statement** 

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Wash thoroughly after handling. Avoid release to the environment. Wear

Category 3

protective gloves/protective clothing/eye protection/face protection.

**Response** If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation occurs: Get medical advice/attention. Take off contaminated

clothing and wash before reuse.

Storage Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise None known.

classified (HNOC)

# 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	Common name and synonyms	CAS number	%
2-Butoxyethanol		111-76-2	1 - < 3
Solvent Naphtha (petroleum), Light Arom.		64742-95-6	1 - < 3
Triéthanolamine		102-71-6	1 - < 3
SODIUM HYDROXIDE		1310-73-2	< 1
DIETHANOLAMINE		111-42-2	< 0.3
SODIUM NITRITE		7632-00-0	< 0.2
Other components below reportable levels	<u> </u>		90 - 100

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

# 4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get Skin contact

medical advice/attention. Wash contaminated clothing before reuse.

**Eve contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and

delayed

Severe eve irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness

and pain.

Indication of immediate medical attention and special treatment needed

General information

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

#### 5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

Special protective equipment and precautions for firefighters During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods General fire hazards Use standard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

### 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 touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

# Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

# **Environmental precautions**

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid

discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

# Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

# 8. Exposure controls/personal protection

#### Occupational exposure limits

Components	Type	Value	
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3	
,		50 ppm	
SODIUM HYDROXIDE (CAS 1310-73-2)	PEL	2 mg/m3	
US. ACGIH Threshold Limit Value	98		
Components	Туре	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
DIETHANOLAMINE (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3	·
Triéthanolamine (CAS 102-71-6)	TWA	5 mg/m3	
US. NIOSH: Pocket Guide to Cher	mical Hazards		
Components	Туре	Value	
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3	
,		5 ppm	
DIETHANOLAMINE (CAS 111-42-2)	TWA	15 mg/m3	
•		3 ppm	
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3	

### **Biological limit values**

# **ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

<sup>\* -</sup> For sampling details, please see the source document.

#### **Exposure guidelines**

#### US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)

Can be absorbed through the skin.

**DIETHANOLAMINE (CAS 111-42-2)** Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2) Skin designation applies.

**US - Tennessee OELs: Skin designation** 

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation** 

DIETHANOLAMINE (CAS 111-42-2) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxvethanol (CAS 111-76-2) Can be absorbed through the skin.

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove **Hand protection** 

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

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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.

9. Physical and chemical properties

**Appearance** Liquid.

Liquid. Physical state Liquid. **Form** Color Green tint Odor Soapy

Not available. **Odor threshold** 

9 - 10 Ηq

Not available. Melting point/freezing point Not available. Initial boiling point and boiling

range

170.0 °F (76.7 °C) Tag Closed Cup Flash point

**Evaporation rate** Not available. Not applicable. Flammability (solid, gas)

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

(%)

Not available.

Flammability limit - upper

Not available.

Explosive limit - lower (%) Not available. Not available. Explosive limit - upper (%)

Vapor pressure 0.00001 hPa estimated

Not available. Vapor density Relative density Not available.

Solubility(ies)

Solubility (water) Not available. Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

Other information

Density 8.37 lbs/gal
Explosive properties Not explosive.

Flammability class Combustible IIIA estimated

Oxidizing properties Not oxidizing.

Percent volatile 87.45 % estimated

Specific gravity 1.01 VOC (Weight %) 5 % w/w

# 10. Stability and reactivity

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

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

**Conditions to avoid**Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

**Hazardous decomposition** 

products

No hazardous decomposition products are known.

# 11. Toxicological information

#### Information on likely routes of exposure

**Inhalation** Prolonged inhalation may be harmful.

**Skin contact** Causes skin irritation.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and

prolonged. These effects have not been observed in humans.

Prolonged or repeated exposure may cause liver and kidney damage. These effects have not

been observed in humans.

**Eye contact** Causes serious eye damage.

**Ingestion** Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause

redness and pain.

#### Information on toxicological effects

#### **Acute toxicity**

Components	Species	Test Results
2-Butoxyethanol (CAS 111-76	5-2)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	400 mg/kg
Inhalation		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
Oral		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg

Components **Species Test Results** 560 mg/kg Rat **DIETHANOLAMINE (CAS 111-42-2) Acute** Dermal LD50 Rabbit 11.9 ml/kg Oral LD50 Rat 710 mg/kg SODIUM NITRITE (CAS 7632-00-0) **Acute** Inhalation LC50 Rat 5.5 mg/l, 4 Hours Oral LD50 Mouse 175 mg/kg

Triéthanolamine (CAS 102-71-6)

Acute Dermal

LD50 Rabbit > 20000 mg/kg

Oral

LD50 Guinea pig 5300 mg/kg

Rat 8 g/kg

186 mg/kg

85 mg/kg

Rabbit

Rat

**Skin corrosion/irritation** Causes skin irritation.

Serious eye damage/eye Causes serious eye damage.

irritation

Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

Germ cell mutagenicity May cause genetic defects.

Carcinogenicity May cause cancer.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

DIETHANOLAMINE (CAS 111-42-2) 2B Possibly carcinogenic to humans.

Triéthanolamine (CAS 102-71-6) 3 Not classifiable as to carcinogenicity to humans.

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

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not an aspiration hazard.

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

#### **Chronic effects**

May be harmful if absorbed through skin. Prolonged inhalation may be harmful.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Prolonged exposure may cause chronic effects.

Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

# 12. Ecological information

Harmful to aquatic life. **Ecotoxicity** 

Components		Species	Test Results
2-Butoxyethanol (CAS	111-76-2)		
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
DIETHANOLAMINE (C	CAS 111-42-2)		
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	61.8 - 86.04 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	100 mg/l, 96 hours
SODIUM HYDROXIDE	E (CAS 1310-73-2)		
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	34.59 - 47.13 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	125 mg/l, 96 hours
SODIUM NITRITE (CA	AS 7632-00-0)		
Aquatic			
Crustacea	EC50	Greasyback shrimp (Metapenaeus ensis)	16.14 - 26.61 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.15 - 0.25 mg/l, 96 hours
Triéthanolamine (CAS	102-71-6)		
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	565.2 - 658.3 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	10610 - 13010 mg/l, 96 hours

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this product.

#### Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-Butoxyethanol 0.83 **DIETHANOLAMINE** -1.43 Triéthanolamine -1

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

# 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow

this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches

with chemical or used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

# 14. Transport information

DOT

**UN number** Not available.

**UN** proper shipping name Consumer commodity

Transport hazard class(es)

Class ORM-D

Subsidiary risk

Label(s) None

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Packaging exceptions 156, 306 Packaging non bulk 156, 306 None Packaging bulk

**IATA** 

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

# 15. Regulatory information

**US federal regulations** 

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

SODIUM NITRITE (CAS 7632-00-0) 1.0 % One-Time Export Notification only.

**CERCLA Hazardous Substance List (40 CFR 302.4)** 

2-Butoxyethanol (CAS 111-76-2) Listed. **DIETHANOLAMINE (CAS 111-42-2)** Listed. SODIUM HYDROXIDE (CAS 1310-73-2) Listed. SODIUM NITRITE (CAS 7632-00-0) Listed.

Not established.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes **Hazard categories** 

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

**Chemical name** CAS number % by wt. 2-Butoxyethanol 111-76-2 1 - < 3

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

**DIETHANOLAMINE (CAS 111-42-2)** 

# Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

#### **US state regulations**

# US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

# US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

2-Butoxyethanol (CAS 111-76-2) DIETHANOLAMINE (CAS 111-42-2) SODIUM HYDROXIDE (CAS 1310-73-2)

Solvent Naphtha (petroleum), Light Arom. (CAS 64742-95-6)

#### **US. Massachusetts RTK - Substance List**

2-Butoxyethanol (CAS 111-76-2) DIETHANOLAMINE (CAS 111-42-2) SODIUM HYDROXIDE (CAS 1310-73-2) SODIUM NITRITE (CAS 7632-00-0) Triéthanolamine (CAS 102-71-6)

#### US. New Jersey Worker and Community Right-to-Know Act

2-Butoxyethanol (CAS 111-76-2) DIETHANOLAMINE (CAS 111-42-2) SODIUM HYDROXIDE (CAS 1310-73-2) SODIUM NITRITE (CAS 7632-00-0) Triéthanolamine (CAS 102-71-6)

#### US. Pennsylvania Worker and Community Right-to-Know Law

2-Butoxyethanol (CAS 111-76-2) DIETHANOLAMINE (CAS 111-42-2) SODIUM HYDROXIDE (CAS 1310-73-2) SODIUM NITRITE (CAS 7632-00-0) Triéthanolamine (CAS 102-71-6)

# **US. Rhode Island RTK**

2-Butoxyethanol (CAS 111-76-2) DIETHANOLAMINE (CAS 111-42-2) SODIUM HYDROXIDE (CAS 1310-73-2) SODIUM NITRITE (CAS 7632-00-0)

#### **US.** California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

# US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Listed: April 6, 2010
DIETHANOLAMINE (CAS 111-42-2) Listed: June 22, 2012
NICKEL (CAS 7440-02-0) Listed: October 1, 1989

#### **International Inventories**

Inventory name	On inventory (yes/no)*
Australian Inventory of Chemical Substances (AICS)	Yes
Domestic Substances List (DSL)	Yes
Non-Domestic Substances List (NDSL)	No
Inventory of Existing Chemical Substances in China (IECSC)	Yes
European Inventory of Existing Commercial Chemical Substances (EINECS)	No
European List of Notified Chemical Substances (ELINCS)	No
Inventory of Existing and New Chemical Substances (ENCS)	No
Existing Chemicals List (ECL)	No
New Zealand Inventory	No
Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
	Australian Inventory of Chemical Substances (AICS) Domestic Substances List (DSL) Non-Domestic Substances List (NDSL) Inventory of Existing Chemical Substances in China (IECSC) European Inventory of Existing Commercial Chemical Substances (EINECS) European List of Notified Chemical Substances (ELINCS) Inventory of Existing and New Chemical Substances (ENCS) Existing Chemicals List (ECL) New Zealand Inventory Philippine Inventory of Chemicals and Chemical Substances

On inventory (yes/no)\* Country(s) or region Inventory name

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing

# 16. Other information, including date of preparation or last revision

04-23-2015 Issue date

Version # 01

Health: 3\* **HMIS®** ratings

Flammability: 2 Physical hazard: 0

Health: 3 NFPA ratings

Flammability: 2 Instability: 0

NFPA ratings

country(s).



Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Material name: Solder Seal/Gunk GP General Purpose Degreaser

SDS US 10 / 10 GP2A Version #: 01 Issue date: 04-23-2015