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PROFESSIONAL SUMMIT

Safety Data Sheet
Super Concentrate
Rev It Up

1. IDENTIFICATION

Synonyms	**none**
CAS#	***see Part 3, below***
Material Use	**cleaner**

IN AN EMERGENCY CALL: INFOTRAC 1-800-535-5053

2. HAZARD IDENTIFICATION

GHS Class	***skin corrosive***	***STOT***	***carcinogen***
(Category)	***(1)***	***(3)***	***(3)***
Signal Words	***DANGER***	***WARNING***	***WARNING***
Hazard Statements	*causes severe skin burns & eye damage (H314)*	*may cause respiratory tract irritation (H335)*	*suspected of causing cancer (H351)*

GHS Precautionary Statements for Labeling

P262	**Do not get in eyes, on skin or on clothing.**
P264	**Wash thoroughly after handling.**
P270	**Do not eat, drink or smoke when using this product.**
P272	**Contaminated work clothing should not be allowed out of the workplace.**
P280	**Wear protective gloves and clothing of butyl or neoprene.**
P273	**Avoid release to the environment.**
P391	**Collect spillage.**
P313 & P333	**If skin irritation or rash occurs, get medical advice/attention.**

3. COMPOSITION

	CAS NUMBER	%	TLV ppm / mg/m^3	LD_{50} (*mg/kg*) ORAL	LD_{50} (mg/kg) SKIN	LC_{50} ppm INHALATION
Sodium Metasilicate (*pentahydrate*)	6834-92-0	5-10%	not listed	850	not known	not known
2-Butoxyethanol	111-76-2	1-5%	20/100 (skin)	>300	>450	>450
Glycol Ether DPM	34590-94-8	1-5%	100/605 (skin)	5130	>13,000	above 500
Tetrasodium Ethylenediaminetetraacetic Acid	64-02-8	1-5%	not listed	>1780	>5000	not known
Alkylbenzenesulfonic Acid	on request	1-5%	not listed	above 500	not known	not known
Anionic Phosphate Ester (surfactant)	on request	1-5%	not listed	>2000	not known	not known
Water	7732-18-5	balance	not toxic	90,000	not toxic	not toxic

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4. FIRST AID

SKIN: Wash with plenty of water. Remove contaminated clothing and do not reuse until laundered. Seek medical help promptly if there is persistent itching or redness in the affected area.

EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance if there is any irritation.

INHALATION: Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If victim's breathing stops, administer artificial respiration and seek medical aid promptly.

INGESTION: Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity product. The stomach should only be emptied under medical supervision, after the installation of an airway to protect the lungs.

5. FLAMMABILITY & FIRE-FIGHTING

Flash Point	cannot burn
Autoignition Temperature	cannot burn
Flammable Limits	cannot burn
Combustion Products	carbon monoxide, nitrogen oxides, sulfur oxides
Firefighting Precautions	as for materials sustaining fire; firefighters must wear SCBA
Static Discharge	cannot accumulate a static charge

6. ACCIDENTAL RELEASE MEASURES

Leak Precaution	dike to control spillage and prevent environmental contamination
Handling Spill	ventilate contaminated area; recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep, shovel & store in closed containers for disposal

7. HANDLING & STORAGE

Store and use away from strong acids.

Avoid generating or breathing product vapor or mist. If mist or vapor form in use, install adequate ventilation to maintain airborne concentration of the product below regulated limits (see Part 8, below). Avoid contact with skin and wash work clothes frequently. An eye bath should be available near the workplace.

8. EXPOSURE CONTROL & PERSONAL PROTECTION

2-Butoxyethanol:			
ACGIH TLV	20ppm / 96mg/m^3 (skin)	ACGIH STEL	not listed
OSHA PEL	50ppm / 240mg/m^3 (skin)	OSHA STEL	not listed
Glycol Ether DPM:			
ACGIH TLV	100ppm / 606mg/m^3	ACGIH STEL	not listed
OSHA PEL	100ppm / 600mg/m^3	OSHA STEL	150ppm / 900mg/m^3
Ventilation	mechanical ventilation is probably not required to control airborne vapor or mist to regulated limits		
Hands	neoprene or butyl gloves should be resistant – *always confirm suitability with supplier*		
Eyes	safety glasses with side shields or chemical goggles – *always protect eyes!*		
Clothing	impermeable (hands, above) apron and boots may be worn if splashing is anticipated		

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9. PHYSICAL AND CHEMICAL PROPERTIES

Odor & Appearance	clear, blue, liquid with lemon odor
Odor Threshold	not known
Vapor Pressure	as for water
Evaporation Rate (*Butyl Acetate = 1*)	as for water
Vapor Density (air = 1)	0.6 (*water vapor*), 4.1 (*2-butoxyethanol*), 5.1 (*Glycol Ether DPM*)
Boiling Point	approx. 105ºC / 221ºF
Freezing Point	approx. -5ºC / 23ºF
Specific Gravity	1.06-1.07 (20/20ºC)
Water Solubility	complete
Viscosity	not known – *thin mobile liquid*
pH	11.9 – *strongly alkaline*

10. REACTIVITY

Dangerously Reactive With	none known
Also Reactive With	strong acids
Chemical Stability	stable; will not polymerize
Decomposes in Presence of	not known
Decomposition Products	none apart from Hazardous Combustion Products
Mechanical Impact	not sensitive

11. TOXICITY INFORMATION

i. *ACUTE EXPOSURE*

Skin Contact	corrosive to skin if contact is prolonged
Skin Absorption	yes, slowly; toxic effects unlikely by this route
Eye Contact	rapidly corrosive to eyes
Inhalation	product mist likely to irritate respiratory system
Ingestion	corrosive to mouth, throat and stomach; may cause belly pain, nausea, vomiting

ii. *CHRONIC EXPOSURE*

General	prolonged or repeated exposure to dilute product may cause dermatitis
Sensitizing	not a sensitizer
Carcinogen/Tumorigen	not known as a tumorigen or a carcinogen in humans; 2-butoxyethanol is an animal carcinogen (A 3)
Reproductive Effect	no known effect on humans or animals
Mutagen	not known to be a mutagen or teratogen in humans or animals
Synergistic With	not known
Calculated LD_{50} (oral)	3290mg/kg (rat)
Calculated LD_{50} (skin)	8375mg/kg (rabbit)
Calc. LC_{50} (inhalation)	insufficient data to calculate

12. ECOLOGICAL INFORMATION

2-Butoxyethanol:

Bioaccumulation	rapidly eliminated from the body, cannot bioaccumulate; biological ½-life <48hr
Biodegradation	biodegrades readily & rapidly in the presence of oxygen; 75%-100% in 20-28 days
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; estimated ½-life in air 16 hours
Mobility in soil, water	water soluble; moves readily & rapidly in soil and water
Aquatic Toxicity	
LC_{50} (Fish, 96hr)	1490 & 2950mg/litre (Lepomis macrochirus), 1250mg/litre (Menidia beryllina),
EC_{50} (Crustacea, 24hr)	1700-1940 & 5000mg/litre (Daphnia magna), 600-1000mg/litre (Crangon crangon, 48hr)
EC_{50} (Algae)	35mg/litre (Microcistis aeruginosa), 900mg/litre (Scenedesmus quadricauda)
EC_{50} (Bacteria)	911mg/litre (Chilomonas paramecium), 700mg/litre (Pseudomonas putida)

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12. ECOLOGICAL INFORMATION, cont'd

Tetrasodium Ethylenediaminetetraacetic Acid:

Bioaccumulation	not a bioaccumulator
Biodegradation	various values reported from 1% in 72dy to 63% in 5dy (*major component CAS# 64-02-8, only*)
Abiotic Degradation	not known
Mobility in soil, water	highly water soluble; expected to bind to soil particles; may move slowly or not at all in soil & water
Aquatic Toxicity	(*for major component, CAS# 64-02-8, only*)
LC_{50} (Fish, 96hr)	41, 159, 486, 532, 1030 & 2070mg/litre (Lepomis macrochirus), 60mg/litre (Pimephelas promelas)
EC_{50} (Crustacea, 24hr)	610, 625 & 1030mg/litre (Daphnia magna), 4834mg/litre (Crangon crangon, 96hr) *& others*
EC_{50} (Algae)	>100mg/litre (Scenedesmus subspicatus)
EC_{10} (Bacteria)	55mg/litre (Pseudomonas putida), >1000mg/litre (*other bacteria*)
EC_{5} (Microbes)	663mg/litre (Chilomonas paramecium)

Alkylbenzenesulfonic Acid:

Bioaccumulation	not a bioaccumulator
Biodegradation	biodegrades readily & rapidly in the presence of oxygen & industrial waste sludge; 90% in 4-5 days reported; *far slower rates seen if adsorption to soil competes with bacterial degradation*
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; estimated ½-life in air is 8 hours
Mobility in soil, water	water soluble; may move readily in soil & water; *adsorption to soil may immobilise this substance*
Aquatic Toxicity	
LC_{50} (Fish, 96hr)	3.5-10mg/litre (Brachidanio rerio), 3.2-5.6mg/litre (Salmo gairdneri), 5-6mg/litre (Capitella capitata) 7mg/litre (Rita rita), 5.6mg/litre (Scoleleptis fuliginosa), 2.6mg/litre (Leuciscus idus) & others
EC_{50} (Crustacea, 24hr)	5.9mg/litre (Daphnia magna)
EC_{50} (Algae)	29mg/litre (Selenastrum capricornutum)
EC_{50} (Bacteria)	50mg/litre (Haematococcus pluvialis, 4 hr)

Sodium Metasilicate pentahydrate:

Bioaccumulation	not a bioaccumulator
Biodegradation	inorganic product – does not biodegrade
Abiotic Degradation	water-soluble substance, dilutes readily in the environment; combines with metal ions to form insoluble calcium. aluminum, magnesium & iron silicates similar to naturally occurring silicates
Mobility in soil, water	water soluble; moves readily in soil and water
Aquatic Toxicity	
LC_{50} (Fish, 96hr)	365mg/litre (Brachydanio rerio), 4037mg/litre (Gambusia affinis)
EC_{50} (Crustacea, 96hr)	376mg/litre (Daphnia magna), 1100mg/litre (Lymnia sp.), 278mg/litre (Hyallela sp.)
EC_{50} (Algae)	no data
EC_{0} (Bacteria)	>1740mg/litre (Pseudomonas putida) – *this is an LC_0 – no inhibition at this dose*

Anionic phosphate ester surfactant:

Bioaccumulation	water soluble; will not bioaccumulate
Biodegradation	readily biodegradable; >60% in 28 days; resulting phosphate is rapidly taken up by vegetation
Abiotic Degradation	not known
Mobility in soil, water	water soluble; moves readily through soil & the water column
Aquatic Toxicity	
LC_{50} (Fish 96 hr)	*no data available*
LC_{50} (Crustacea, 48hr)	1-10mg/litre (Daphnia magna)
EC_{50} (Algae, 96hr)	*no data available*
LC_{50} (Microorganisms)	*no data available – ready biodegradability suggests low toxicity to bacteria*

Glycol Ether DPM:

Bioaccumulation	not a bioaccumulator due to high water solubility and rapid rate of elimination/metabolism
Biodegradation	degrades readily in the presence of oxygen; various rates reported from 93% in 13d to 34% in 28d
Abiotic Degradation	direct photolysis is reported to cause destruction with a ½-life of 3-4 hours
Mobility in soil, water	water soluble; moves readily in soil and water
Aquatic Toxicity	
LC_{50} (Fish, 96hr)	10,000mg/litre (Pimephales promelas),
LC_{50} (Crustacea, 48hr)	above 1000mg/litre (Crangon crangon, 96hr), 1920mg/litre (Daphnia magna)
EC_{50} (Algæ)	no data available
EC_{10} (Bacteria)	4168mg/litre (Pseudomonas putida) – *this is an EC_{10} not an EC_{50}*

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13. DISPOSAL CONSIDERATIONS

Waste Disposal **do not flush to sewer**; disposal should be handled by a hazardous waste facility

Containers **Drums** should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use.
Pails must be vented and thoroughly dried prior to crushing and recycling.
IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5 years). Steel containers must be inspected, pressure tested & recertified every 5 years.
Warning: never cut, drill, weld or grind on or near this container, even if empty.

14. TRANSPORT INFORMATION

USA 49 CFR & Canada/International TDG

Product Identification Number	**UN – 3266**
Shipping Name	**Corrosive liquid, basic, inorganic, N.O.S. (sodium metasilicate)**
Classification	**Class 8; Packing Group III**
Marine Pollution	***not a marine pollutant***
ERAP Required	***No***

15. REGULATIONS

Canada DSL	**on inventory**
U.S.A. TSCA	**on inventory**
Europe EINECS	**on inventory**

16. OTHER INFORMATION

Date of Preparation **September 2014**
Date of Revision **-**
Prepared for Tomco-Harwel, by **Peter Bursztyn**
With data from the Registry of Toxic Effects of Chemical Substances (RTECS), Hazardous Substance Data Base (HSDB), Cheminfo (CCOHS), OSHA, IUCLID Datasheets (European Chemical Substance Information System - ESIS), & others sources (below if used), as required/available

last page of SDS

PLEASE ENSURE THAT THIS SDS IS GIVEN TO, AND EXPLAINED TO PEOPLE USING THIS PRODUCT.

ISSA MEMBER

EMERGENCY INFORMATION: INFOTRAC 1-800-535-5053