

ITW POLYMERS & FLUIDS

Chemwatch: **6079-85** Version No: **7.1.1.1**

Safety Data Sheet according to WHS and ADG requirements

Issue Date: 10/08/2018 Print Date: 15/08/2018 Initial Date: 14/06/2006 S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	Take Off
Other means of identification	Not Available

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

Relevant identified uses	Designed for use as a general purpose cleaning agent for soak and wipe-on and wipe-off applications.
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Details of the supplier of the safety data sheet

Registered company name	ITW POLYMERS & FLUIDS	
Address	100 Hassall Street, Wetherill Park Not Available 2164 NSW Australia	
Telephone	+61 2 9757 8800	
Fax	+61 2 9757 3855	
Website	www.itwpf.com.au	
Email	Not Available	

Emergency telephone number

Association / Organisation	Not Available	Not Available
Emergency telephone numbers	1800 039 008	0800 2436 2255
Other emergency telephone numbers	+61 3 9573 3112	Not Available

CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
1800 039 008	1800 039 008	+612 9186 1132

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	S5	
Classification [1]	Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1, Acute Aquatic Hazard Category 2	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	

Label elements

Hazard pictogram(s)



SIGNAL WORD	DANGER

Hazard statement(s)

nazaru statement(s)	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H401	Toxic to aquatic life.

Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P273	Avoid release to the environment.	

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Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER or doctor/physician.	
P362	Take off contaminated clothing and wash before reuse.	
P302+P352	IF ON SKIN: Wash with plenty of soap and water.	

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501 Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
111-76-2	<10	ethylene glycol monobutyl ether
68439-50-9	<10	alcohols C12-14 ethoxylated
6834-92-0	<10	sodium metasilicate, anhydrous
	>60	Ingredients determined not to be hazardous

SECTION 4 FIRST AID MEASURES

Description of first aid measures

General	
Eye Contact	If this product comes in contact with the eyes: • Wash out immediately with fresh running water. • Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. • Seek medical attention without delay; if pain persists or recurs seek medical attention. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Fire/Explosion Hazard

Extinguishing media | There is no restriction on the type of extinguisher which may be used. | Use extinguishing media suitable for surrounding area. | Special hazards arising from the substrate or mixture | Fire Incompatibility | Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result | Advice for firefighters | Alert Fire Brigade and tell them location and nature of hazard. | Wear breathing apparatus plus protective gloves in the event of a fire. | Prevent, by any means available, spillage from entering drains or water courses. | Use fire fighting procedures suitable for surrounding area. | Non combustible.

▶ Not considered a significant fire risk, however containers may burn.

Decomposes on heating and produces toxic fumes of:

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, carbon monoxide (CO)

carbon dioxide (CO2)

other pyrolysis products typical of burning organic material.

May emit poisonous fumes May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

- ► Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- ▶ Control personal contact with the substance, by using protective equipment.
- ► Contain and absorb spill with sand, earth, inert material or vermiculite.

Major Spills

Minor hazard.

- ► Clear area of personnel.
- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Control personal contact with the substance, by using protective equipment as required.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

- ▶ DO NOT allow clothing wet with material to stay in contact with skin
- ► Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.

Other information

- ► Store in original containers.
- ► Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- ► Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container

- ► Polyethylene or polypropylene container.
- ▶ Packing as recommended by manufacturer.
- ► Check all containers are clearly labelled and free from leaks.

 Storage incompatibility

 ► Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	ethylene glycol monobutyl ether	2-Butoxvethanol	20 ppm / 96.9 mg/m3	242 mg/m3 / 50 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm
sodium metasilicate, anhydrous	Sodium metasilicate pentahydrate	6.6 mg/m3	73 mg/m3	440 mg/m3
sodium metasilicate, anhydrous	Sodium silicate; (Sodium metasilicate)	3.8 mg/m3	42 mg/m3	250 mg/m3

Ingredient	Original IDLH	Revised IDLH
ethylene glycol monobutyl ether	700 ppm	Not Available
alcohols C12-14 ethoxylated	Not Available	Not Available
sodium metasilicate, anhydrous	Not Available	Not Available

Exposure controls

Appropriate engineering controls

 $\label{thm:conditions} \mbox{General exhaust is adequate under normal operating conditions.}$

Personal protection









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Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical 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. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care.
Body protection	See Other protection below
Other protection	 ▶ Overalls. ▶ P.V.C. apron. ▶ Barrier cream.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the $\ computer$ generated selection:

Take Off

Material	СРІ
BUTYL	A
PE/EVAL/PE	A
SARANEX-23	A
NEOPRENE	В
NITRILE	В
PVC	В
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	С
PVA	С

^{*} CPI - Chemwatch Performance Index

- A: Best Selection
- B: Satisfactory; may degrade after 4 hours continuous immersion
- C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

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Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear blue liquid with sweet odour; mixes with water.			
Physical state	Liquid	Relative density (Water = 1)	1.06-1.08 @20C	
Odour	Not Available	Partition coefficient n-octanol / water	Not Available	
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable	
pH (as supplied)	Not Available	Decomposition temperature	Not Available	
Melting point / freezing point (°C)	0	Viscosity (cSt)	Not Available	
Initial boiling point and boiling range (°C)	~100	Molecular weight (g/mol)	Not Applicable	
Flash point (°C)	Not Applicable	Taste	Not Available	
Evaporation rate	Not Applicable	Explosive properties	Not Available	
Flammability	Not Applicable	Oxidising properties	Not Available	
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available	
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available	
Vapour pressure (kPa)	2 @20C	Gas group	Not Available	
Solubility in water (g/L)	Miscible	pH as a solution (1%)	11.8 (3%)	

^{*} Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

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Vapour density (Air = 1) Not Available VOC g/L Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Not normally a hazard due to non-volatile nature of product
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and vomiting
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

Take Off	TOXICITY	IRRITATION
ethylene glycol monobutyl ether	TOXICITY	IRRITATION
alcohols C12-14 ethoxylated	TOXICITY	IRRITATION
sodium metasilicate, anhydrous	TOXICITY	IRRITATION

Legend:

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

For ethylene glycol monoalkyl ethers and their acetates (EGMAEs):

Typical members of this category are ethylene glycol propylene ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE) and their acetates.

EGMAEs are substrates for alcohol dehydrogenase isozyme ADH-3, which catalyzes the conversion of their terminal alcohols to aldehydes (which are transient metabolites). Further, rapid conversion of the aldehydes by aldehyde dehydrogenase produces alkoxyacetic acids, which are the predominant urinary metabolites of mono substituted glycol ethers.

Acute Toxicity: Oral LD50 values in rats for all category members range from 739 (EGHE) to 3089 mg/kg bw (EGPE), with values increasing with decreasing molecular weight.

Animal testing showed that exposure to ethylene glycol monobutyl ether resulted in toxicity to both the mother and the embryo. Reproductive effects were thought to be less than that of other monoalkyl ethers of ethylene glycol.

Chronic exposure may cause anaemia, with enlargement and fragility of red blood cells. It is thought that in animals butoxyethanol may cause

eneralized clotting and bone infarction.

For ethylene glycol:

Ethylene glycol is quickly and extensively absorbed throughout the gastrointestinal tract. Limited information suggests that it is also absorbed through the airways; absorption through skin is apparently slow. Following absorption, it is distributed throughout the body. In humans, it is initially metabolized by alcohol dehydrogenase to form glycoaldehyde, which is rapidly converted to glycolic acid and glyoxal.

NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes. ** ASCC (NZ) SDS

ALCOHOLS C12-14 ETHOXYLATED

ETHYLENE GLYCOL

MONOBUTYL ETHER

Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported.

Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.

Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animal.

* BASF Canada ** [Henkel CCINFO 1450373]

SODIUM METASILICATE, ANHYDROUS

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as

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reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

ETHYLENE GLYCOL MONOBUTYL ETHER & ALCOHOLS C12-14 ETHOXYLATED The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	✓	Reproductivity	0
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	0
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0

Legend:

✓ – Data available to make classification

X - Data available but does not fill the criteria for classification

Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

NOT AVAILABLE

Ingredient	Endpoint	Test Duration (hr)	Effect	Value	Species	BCF
Take Off	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
ethylene glycol monobutyl ether	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
alcohols C12-14 ethoxylated	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
sodium metasilicate, anhydrous	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Toxic to aquatic organisms.

DO NOT discharge into sewer or waterways

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
ethylene glycol monobutyl ether	LOW (BCF = 2.51)

Mobility in soil

Ingredient	Mobility
ethylene glycol monobutyl ether	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal

- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- ► Consult State Land Waste Management Authority for disposal.
- ► Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR)

: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee)

: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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Transport in bulk according to Annex II of MARPOL and the IBC code

Source	Ingredient	Pollution Category
	Take Off	

SECTION 15 REGULATORY INFORMATION

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

ETHYLENE GLYCOL MONOBUTYL ETHER(111-76-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Part 2, Section Seven - Appendix I

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule $6\,$

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

ALCOHOLS C12-14 ETHOXYLATED(68439-50-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

SODIUM METASILICATE, ANHYDROUS(6834-92-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (alcohols C12-14 ethoxylated; sodium metasilicate, anhydrous; ethylene glycol monobutyl ether)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (alcohols C12-14 ethoxylated)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
alcohols C12-14 ethoxylated	68439-50-9, 103819-01-8

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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