Vers 1.1	sion	Revision Date: 12/29/2021		0S Number: 0000260014	Date of last issue: 08/21/2020 Date of first issue: 08/21/2020		
SEC							
	Produc	t name	:	MasterFlow 678 F	MasterFlow 678 Part A		
	Produc	t code	:	0000000005559	1646 000000000055591646		
	Other n	neans of identification	:	MFlow 678 PTA			
	Manufacturer or supplier's of Company name of supplier Address				construction Systems		
			:	23700 CHAGRIN Beachwood OH 4			
	Emerge	ency telephone	:	ChemTel: +1-813	-248-0585		
	National Emergency Tele- phone Number		:	USA: +1-800-255	5-3924 ChemTel contract no. MIS9240420		
	Recommended use of the c		hen	nical and restriction	ons on use		
	Recom	mended use	:	Injection or grouti	ng applications		
	Restric	tions on use	:	Reserved for indu	strial and professional use.		

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin irritation	:	Category 2
Skin sensitization	:	Category 1
Short-term (acute) aquatic hazard	:	Category 2
Long-term (chronic) aquatic hazard	:	Category 2
GHS label elements Hazard pictograms		
Signal Word	:	Warning
Hazard Statements	:	H315 Causes skin irritation. H317 May cause an allergic skin reaction.

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		H401 Toxic to H411 Toxic to	aquatic life. aquatic life with long lasting effects.		
Precautionary Statements		P264 Wash sk P272 Contamin the workplace. P273 Avoid rel	P261 Avoid breathing mist or vapors. P264 Wash skin thoroughly after handling. P272 Contaminated work clothing must not be allowed out of		
		P333 + P313 If attention.	F ON SKIN: Wash with plenty of soap and water. skin irritation or rash occurs: Get medical advice/ contaminated clothing and wash before reuse. pillage.		
		Disposal: P501 Dispose posal plant.	of contents/ container to an approved waste dis-		
Othe	r hazards				

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
Chemical nature	:	epoxy resin

Components

Chemical name	CAS-No.	Concentration (% w/w)
1,3-bis(2,3-epoxypropoxy)-2,2-	17557-23-2	>= 10 - < 20
dimethylpropane		
Alkyl (C12-C14) glycidyl ether	68609-97-2	>= 5 - < 10

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	First aid personnel should pay attention to their own safety. Immediately remove contaminated clothing.
If inhaled	:	If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.
In case of skin contact	:	After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.
In case of eye contact	:	Remove contact lenses, if present.

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				ves for at least 15 minutes under running s held open, consult an eye specialist.
If swallowed		:	Immediately rinse seek medical atte Do NOT induce v	
Most important symptoms and effects, both acute and delayed		:	Causes skin irritation. May cause an allergic skin reaction.	
Notes	to physician	:	Treat symptomat	ically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam Water spray Dry powder Carbon dioxide (CO2)
Unsuitable extinguishing media	:	water jet
Specific hazards during fire fighting	:	See SDS section 10 - Stability and reactivity.
Hazardous combustion prod- ucts	:	harmful vapours nitrogen oxides fumes/smoke carbon black carbon oxides
Further information	:	The degree of risk is governed by the burning substance and the fire conditions. If exposed to fire, keep containers cool by spraying with water. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Contaminated extinguishing water must be disposed of in accordance with official regulations.
Special protective equipment for fire-fighters	:	Wear a self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Do not breathe vapour/aerosol/spray mists. Wear eye/face protection. If exposed to high vapour concentration, leave area immedi- ately. Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.
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Envi	ronmental precautions	:		ninated water/firefighting water. ge into drains/surface waters/groundwater.			
	Methods and materials for containment and cleaning up		: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.				
SECTION	7. HANDLING AND ST	OR	AGE				
	ce on protection against and explosion	:	Normal measu	res for preventive fire protection.			
Advi	ce on safe handling	:	Avoid aerosol f Avoid inhalatio Avoid skin cont Avoid contact v	n of mists/vapours. act.			
Cond	ditions for safe storage	:	place. Containers whi kept upright to Electrical instal	tightly closed in a dry and well-ventilated ch are opened must be carefully resealed and prevent leakage. lations / working materials must comply with al safety standards.			
	ner information on stor- conditions	:		e original container in a cool, dry, well- e away from ignition sources, heat or flame. rect sunlight.			
Reco pera	ommended storage tem- ture	:	> 39 °F / > 4 °C				
	ner information on stor- stability	:	PROTECT FR (BELOW 40°F	DM FREEZING DURING THE COLD-SEASON / 5°C).			

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters Contains no substances with occupational exposure limit values.					
Engineering measures	:	Ensure adequate ventilation.			
Personal protective equipn	nent				
Respiratory protection	:	When workers are facing concentrations above the occupa- tional exposure limits they must use appropriate certified respirators. Use NIOSH approved respiratory protection.			
Hand protection					
Remarks	:	Wear chemical resistant protective gloves. Manufacturer's directions for use should be observed because of great diversity of types.			

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Eye p	protection	: Wear safety g	lasses with side shields or goggles.		
Skin	and body protection	: Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.			
Prote	ctive measures	Avoid contact Avoid exposu Handle in acc and safety pra	gases/vapours/aerosols. with the skin, eyes and clothing. re - obtain special instructions before use. ordance with good building materials hygiene actice. osed work clothing is recommended.		
Hygie	ene measures	Hands and/or the end of the At the end of the care agents a Remove conta re-use or disp Gloves must b	the shift the skin should be cleaned and skin-		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	yellow
Odor	:	mild
Odor Threshold	:	No data available
рН	:	Not applicable
Melting point	:	No data available
Boiling point	:	> 212 °F / > 100 °C
Flash point	:	200 °F / 93 °C
Evaporation rate	:	No data available
Flammability (liquids)	:	not highly flammable Method: derived from flash point
Upper explosion limit / Upper flammability limit	:	No data available

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		explosion limit / Lower bility limit	:	No data available	
	Vapor p	pressure	:	No data available	9
	Relative	e vapor density	:	Heavier than air.	
	Relative	e density	:	1.14	
	Density	,	:	1.14 g/cm3 (68 °	F / 20 °C)
	Bulk de	nsity	:	Not applicable	
	Solubili Wat	ty(ies) er solubility	:	insoluble	
	Solu	bility in other solvents	:	No data available	9
	Partition octanol	n coefficient: n- /water	:	not applicable for	r mixtures
	Autoign	ition temperature	:	No data available	9
	Decom	position temperature	:	No decompositio scribed/indicated	n if stored and handled as pre-
	Viscosi Visc	ty osity, dynamic	:	No data available	
	Visc	osity, kinematic	:	No data available	9
	Explosi	ve properties	:	Not explosive	
	Oxidizir	ng properties	:	Based on its stru as oxidizing.	ctural properties the product is not classified
	Sublima	ation point	:	No data available	9
	Molecu	lar weight	:	Not applicable	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No hazardous reactions if stored and handled as pre- scribed/indicated.
Chemical stability	:	The product is stable if stored and handled as pre- scribed/indicated.
Possibility of hazardous reac- tions	:	The product is stable if stored and handled as pre- scribed/indicated.
Conditions to avoid	:	See SDS section 7 - Handling and storage.

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I	Incomp	atible materials	S	Strong acids Strong bases Strong oxidizing Strong reducing		
	Hazardous decomposition : No hazardous decomposition products if stored a as prescribed/indicated.					
SECT	FION 1	1. TOXICOLOGICAL	INFOR	MATION		
		oxicity ssified based on avail	able info	ormation.		
		orrosion/irritation				
		s eye damage/eye iri ssified based on avail		ormation.		
F	Respiratory or skin sensitization					
-		ensitization use an allergic skin re	action.			
	-	atory sensitization ssified based on avail	able info	ormation.		
		ell mutagenicity	able info	ormation.		
		ogenicity ssified based on avail	able info	ormation.		
		luctive toxicity ssified based on avail	able info	ormation.		
		single exposure ssified based on avail	able info	ormation.		
		repeated exposure ssified based on avail	able info	ormation.		
	-	t ion toxicity ssified based on avail	able info	ormation.		

Further information

Product:

Remarks

: Health injuries are not known or expected under normal use. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

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	12. ECOLOGICAL INFO	ORN	IATION		
Ecoto	xicity				
Produ	ict:				
Ecoto	xicology Assessment				
	aquatic toxicity	:	Toxic to aquatic	life.	
Chron	ic aquatic toxicity	:	Toxic to aquatic	life with long lasting effects.	
Persis	stence and degradabil	ity			
Produ	ict:				
	gradability	:	ingredients, the	g into consideration the properties of severa product is estimated not to be readily biode- ing to OECD classification.	
Stabili	ty in water	:	Remarks: The product is slightly soluble in water. It can be eliminated from water by abiotic processes.		
Bioac	cumulative potential				
<u>Produ</u>	ict:				
Bioaco	cumulation	:		ise of the product's consistency and low wa ilability is improbable.	
Mobil	ity in soil				
<u>Produ</u>	<u>ict:</u>				
	oution among environ- I compartments	:	phere from the v Following expos	ubstance will not evaporate into the atmos- vater surface. ure to soil, adsorption to solid soil particles ore contamination of groundwater is not ex-	
Other	adverse effects				
<u>Produ</u>	<u>ict:</u>				
Addition mation	onal ecological infor- า	:	The product has	e product into the environment without contr not been tested. The statements on ecotos n derived from the properties of the individu	

Disposal methods		
Waste from residues	:	Dispose of in accordance with national, state and local regula- tions. Do not contaminate ponds, waterways or ditches with chemi- cal or used container.

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		Do not dischar	ge into drains/surface waters/groundwater.				
Conta	minated packaging	: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the sub-stance/product.					
ECTION	14. TRANSPORT INFO	ORMATION					
Intern	ational Regulations						
UNRT	DG						
ŪN nu		: UN 3082					
Prope	r shipping name	: ENVIRONMEN	ITALLY HAZARDOUS SUBSTANCE, LIQUID,				
		N.O.S.					
<u>.</u>			RODUCT BISPHENOL-A)				
Class	-l'	: 9					
	diary risk ng group	: EHSM : III					
Labels		: 9 (EHSM)					
		. 3 (EHOW)					
IATA-							
UN/ID	r shipping name	: UN 3082 : ENVIRONMEN	ITALLY HAZARDOUS SUBSTANCE, LIQUID,				
Flope	r shipping name	N.O.S.	TALLI HAZARDOUS SUBSTANCE, LIQUID,				
			RODUCT BISPHENOL-A)				
Class		: 9					
Subsi	diary risk	: EHSM					
	ng group	: 111					
Label			Environmentally hazardous				
	ng instruction (cargo	: 964					
aircrat	ng instruction (passen-	: 964					
ger ai	0	. 904					
0							
	-Code						
UN nu Propo	r shipping name	: UN 3082	ITALLY HAZARDOUS SUBSTANCE, LIQUID,				
Flope	r shipping name	N.O.S.	TALET TRAZARDOUS SUBSTANCE, EIQUID,				
			RODUCT BISPHENOL-A)				
Class		: 9					
Subsi	diary risk	: EHSM					
	ng group	: 111					
Label		: 9 (EHSM)					
EmS	Code e pollutant	: F-A, S-F					
		: yes					

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

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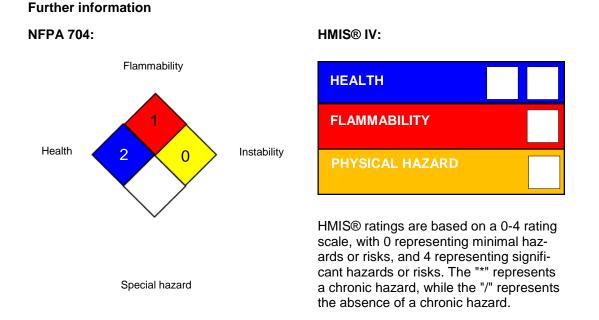
Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

The ingredients of this product are reported in the following inventories:				
TSCA	:	All substances listed as active on the TSCA inventory		
DSL	:	All components of this product are on the Canadian DSL		

SECTION 16. OTHER INFORMATION



Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil

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Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan): ISO - International Organisation for Standardization; KECI -Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date

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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.

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