



SAFETY DATA SHEET

1. Identification

Product identifier Master STAGES™ CLEAN 2029

Other means of identification

Synonyms Master STAGES™ CLEAN 2029 "One Step"

Recommended use Metal cleaners

Recommended restrictions Applicable for industrial settings only. No other uses are advised.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company Name Master Chemical Corp d/b/a Master Fluid Solutions

Address 501 West Boundary Street
Perrysburg, Ohio 43551-1200
United States

Telephone 419-874-7902

Website www.masterchemical.com

E-mail info@masterchemical.com

Emergency phone number CHEMTREC 1-800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Serious eye damage/eye irritation Category 2A

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Causes serious eye irritation.

Precautionary statement

Prevention Wash hands thoroughly after handling. Wear eye protection/face protection.

Response If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage Store away from incompatible materials.

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

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

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
TRADE SECRET*		Proprietary*	1 - < 3
TRADE SECRET*		Proprietary*	1 - < 3
TRIETHANOLAMINE		102-71-6	1 - < 3
Other components below reportable levels			90 - 100

*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.
Skin contact	Wash affected area with mild soap and water.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center.
Most important symptoms/effects, acute and delayed	None known.
General information	Get medical attention, if needed.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical, CO2, water spray or alcohol resistant foam. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	No unusual fire or explosion hazards noted.
Special protective equipment and precautions for firefighters	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	For personal protection, see section 8 of the SDS. Keep unnecessary personnel away. Use personal protective equipment as required.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material. Clean up in accordance with all applicable regulations.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not taste or swallow. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Store in a closed container. The product is stable and non-reactive under normal conditions of use, storage and transport. Store in a dry place.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values Components

	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m ³

Appropriate engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Safety glasses.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.

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.
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9. Physical and chemical properties

Physical state	Liquid.
Color	Yellow
Odor	Mild
Odor threshold	Not available.
pH	11.3 - 11.7

Melting point/freezing point	24.8 °F (-4 °C)
Initial boiling point and boiling range	208.4 °F (98 °C)
Flash point	216.1 °F (102.3 °C)
Evaporation rate	< 1 BuAc
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

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

Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.

Solubility(ies)

Solubility (water) Soluble

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

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Flash point class ASTM D93-08

pH in aqueous solution 10 - 11.5

Specific gravity 1.024 - 1.132

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines.
Incompatible materials	Strong acids. Powerful oxidizers.
Hazardous decomposition products	To avoid thermal decomposition, do not overheat.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Not classified.
Eye contact	May be irritating to eyes.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics May be irritating to eyes.

Information on toxicological effects

Acute toxicity Not classified.

Product	Species	Test Results
Master STAGES™ CLEAN 2029		
Acute		
Dermal		
LD50	Rabbit	> 2000, mg/kg
Inhalation		
LC50	Rat	> 200, mg/l
Oral		
LD50	Rat	> 5000, mg/kg
Skin corrosion/irritation	Not classified.	
Serious eye damage/eye irritation	May be irritating to eyes.	
Respiratory or skin sensitization		
Respiratory sensitization	Classification not possible. Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not regulated.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Classification not possible.	
Specific target organ toxicity - repeated exposure	Classification not possible.	
Aspiration hazard	Classification not possible. Not an aspiration hazard.	
Chronic effects	None known.	
12. Ecological information		
Ecotoxicity	Not available.	
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential	No data available.	
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	Dispose of contents/container in accordance with local/regional/national/international 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.	
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Follow precautions for safe handling described in this safety data sheet.	
14. Transport information		
DOT		
Not regulated as dangerous goods.		
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	Not established.	

15. Regulatory information

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Not regulated.

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

Not regulated.

US state regulations

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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 country(s).

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

Issue date 08-30-2015

Revision date 06-15-2017

Version # 02

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. Master Chemical Corp d/b/a Master Fluid Solutions cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

Revision information Product and Company Identification: Product and Company Identification
Identification: Recommended restrictions
Composition / Information on Ingredients: Ingredients
Exposure controls/personal protection: Appropriate engineering controls
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Data
HazReg Data: North America
GHS: Classification