

## 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 Corporation

**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** Acute toxicity, oral Not classified  
Acute toxicity, dermal Not classified  
Skin corrosion/irritation Not classified  
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

Chemical name	Common name and synonyms	CAS number	%
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

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

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemical, CO <sub>2</sub> , water spray or alcohol resistant foam. Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Specific hazards arising from the chemical</b>	No unusual fire or explosion hazards noted.
<b>Special protective equipment and precautions for firefighters</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

#### 6. Accidental release measures

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

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not taste or swallow. Wash thoroughly after handling.
<b>Conditions for safe storage, including any incompatibilities</b>	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 <sup>3</sup>

<b>Appropriate engineering controls</b>	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. Provide eyewash station.
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##### Individual protection measures, such as personal protective equipment

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

<b>General hygiene considerations</b>	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

### Appearance

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 possible 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.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Master STAGES™ CLEAN 2029		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000, mg/kg
<i>Inhalation</i>		
LC50	Rat	> 200, mg/l
<i>Oral</i>		
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 listed.

**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)**

<b>Hazard categories</b>	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**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
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**Version #** 01**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 Corporation 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.