Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

SECTION 1: Identification

1.1. Product identifier
3M HD Orange

Product Identification Numbers
IS-6301-0050-8

1.2. Recommended use and restrictions on use

Recommended use
Cleaning Utensils

1.3. Supplier's details

Address:	3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100
Telephone:	080-39143000, contact Product EHS team
E Mail:	productehs.in@mmm.com
Website:	http://solutions.3mindia.co.in

1.4. Emergency telephone number
080-39143000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

2.1. Classification of the substance or mixture
Serious Eye Damage/Irritation: Category 2A
Acute Aquatic Toxicity: Category 2.
Chronic Aquatic Toxicity: Category 3.

2.2. Label elements
Signal Word
WARNING!

Symbols

Exclamation mark |

Pictograms

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

General:

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.

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.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Water	7732-18-5	60 - 90
SLES	9004-82-4	7 - 13
Alkyl dimethyl betaine	61791-31-9	1 - 5
Glycerine	56-81-5	1 - 5
Sodium chloride	7647-14-5	0.1 - 1
tetrasodium ethylenediaminetetraacetate	64-02-8	0.1 - 1

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

No need for first aid is anticipated.

Skin contact

No need for first aid is anticipated.

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If swallowed
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required
Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable Extinguishing media
Material will not burn.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Hydrocarbons.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	During combustion.
Oxides of nitrogen.	During combustion.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid eye contact. Keep out of reach of children. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

8.2. Exposure controls

8.2.1. Engineering controls
Not applicable.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect vented goggles.

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Nitrile rubber.

Respiratory protection

Respiratory protection is not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Pleasant fragrance, yellow to orange
Odour threshold	*No data available.*
pH	7 - 9
Melting point/Freezing point: NA	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	*Not applicable.*
Flash point	*Not applicable.*
Evaporation rate	*Not applicable.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*No data available.*
Vapour density	*Not applicable.*
Density	0.9 - 1.1 g/ml
Relative density	0.9 - 1.1 [*Ref Std:*WATER=1]

Water solubility	99 - 100 %
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*Not applicable.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Viscosity	0.01 - 0.05 Pa-s
Percent volatile	0 - 0.1 %

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.
Temperatures above the boiling point.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
No known health effects.

Skin contact
Contact with the skin during product use is not expected to result in significant irritation.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
SLES	Ingestion	Rat	LD50 1,600 mg/kg
Glycerine	Dermal	Rabbit	LD50 estimated to be > 5,000 mg/kg
Glycerine	Ingestion	Rat	LD50 > 5,000 mg/kg
tetrasodium ethylenediaminetetraacetate	Ingestion	Rat	LD50 1,658 mg/kg
Sodium chloride	Dermal	Rabbit	LD50 > 10,000 mg/kg
Sodium chloride	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 10.5 mg/l
Sodium chloride	Ingestion	Rat	LD50 3,550 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Glycerine	Rabbit	No significant irritation
Sodium chloride	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Glycerine	Rabbit	No significant irritation
Sodium chloride	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Glycerine	Guinea pig	Not sensitizing

Respiratory Sensitisation
For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Sodium chloride	In Vitro	Some positive data exist, but the data are not sufficient for classification
Sodium chloride	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Glycerine	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
Sodium chloride	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Glycerine	Ingestion	Not toxic to female reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerine	Ingestion	Not toxic to male reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerine	Ingestion	Not toxic to development	Rat	NOAEL 2,000 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure
For the component/components, either no data are currently available or the data are not sufficient for classification.

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Glycerine	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 3.91 mg/l	14 days
Glycerine	Inhalation	heart | liver | kidney and/or bladder	All data are negative	Rat	NOAEL 3.91 mg/l	14 days
Glycerine	Ingestion	endocrine system | hematopoietic system | liver | kidney and/or bladder	All data are negative	Rat	NOAEL 10,000 mg/kg/day	2 years
Sodium chloride	Ingestion	blood | kidney and/or bladder | vascular system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,240 mg/kg/day	9 months
Sodium chloride	Ingestion	nervous system | eyes	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,700 mg/kg/day	90 days
Sodium chloride	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 33 mg/kg/day	90 days
Sodium chloride	Ingestion	respiratory system	All data are negative	Rat	NOAEL 33 mg/kg/day	90 days

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Alkyl dimethyl betaine	61791-31-9	Water flea	Experimental	48 hours	EC50	0.38 mg/l
Alkyl dimethyl betaine	61791-31-9	Zebra Fish	Experimental	30 days	NOEC	0.05 mg/l
Alkyl dimethyl betaine	61791-31-9	Water flea	Experimental	21 days	NOEC	0.058 mg/l
Alkyl dimethyl betaine	61791-31-9	Zebra Fish	Experimental	96 hours	LC50	0.28 mg/l
Sodium chloride	7647-14-5	Water flea	Experimental	21 days	NOEC	518 mg/l
Sodium chloride	7647-14-5	Algae or other aquatic plants	Experimental	96 hours	EC50	2,430 mg/l
Sodium chloride	7647-14-5	Water flea	Experimental	48 hours	EC50	736 mg/l
Sodium chloride	7647-14-5	Fathead minnow	Experimental	96 hours	LC50	7,650 mg/l
Glycerine	56-81-5	Water flea	Experimental	24 hours	EC50	>100 mg/l
Glycerine	56-81-5	Golden Orfe	Experimental	48 hours	LC50	>100 mg/l
SLES	9004-82-4	Water flea	Experimental	21 days	NOEC	0.27 mg/l
SLES	9004-82-4	Water flea	Laboratory	48 hours	EC50	3.12 mg/l
SLES	9004-82-4	Rainbow trout	Experimental	28 days	NOEC	0.12 mg/l
tetrasodium ethylenediaminetetraacetate	64-02-8	Water flea	Experimental	21 days	NOEC	5.5 mg/l
tetrasodium ethylenediaminetetraacetate	64-02-8	Water flea	Experimental	48 hours	EC50	57 mg/l
tetrasodium ethylenediaminetetraacetate	64-02-8	Bluegill	Experimental	96 hours	LC50	41 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
SLES	9004-82-4	Experimental Biodegradation	26 days	CO2 evolution	81 % weight	OECD 301B - Modified sturm or CO2
Glycerine	56-81-5	Experimental Biodegradation	14 days	BOD	63 % weight	OECD 301C - MITI test (I)
Alkyl dimethyl betaine	61791-31-9	Experimental Biodegradation	28 days	BOD	61 % weight	OECD 301D - Closed bottle test
tetrasodium ethylenediaminetetraacetate	64-02-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sodium chloride	7647-14-5	Data not available or	N/A	N/A	N/A	N/A

		insufficient for classification				

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Glycerine	56-81-5	Experimental Bioconcentration		Log Kow	-1.76	Other methods
tetrasodium ethylenediaminetetraacetate	64-02-8	Experimental BCF-Carp	42 days	Bioaccumulation factor	123	OECD 305E - Bioaccumulation flow-through fish test
SLES	9004-82-4	Estimated Bioconcentration		Bioaccumulation factor	5.9	Estimated: Bioconcentration factor
Alkyl dimethyl betaine	61791-31-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sodium chloride	7647-14-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other Adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

Not hazardous for transportation.

Air Transport (IATA)Regulations
UN No Not applicable
Proper Shipping Name Not applicable
Hazard Classs/Division Not applicable
Subsidiary Risk Not applicable
Packing Group: Not applicable

SECTION 15: Regulatory information

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

Global inventory status
Contact 3M for more information.

Applicable Environmental, Health and Safety Regulations
Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
Hazardous Waste(Management , Handling & Transboundary) Rules, 2008

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules
None.

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:
The Product is classified as Non-hazardous.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 0 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision information:
No revision information

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3M India SDSs are available at http://solutions.3mindia.co.in