MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name	DURA INDUSTRIAL CONCRETE PRIMER (PART A) (DI033)
Synonyms	Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin
Dura Paints (PTY) Ltd	5 Wakefield Road, Founders View South, Edenvale, 1610, South Africa.
Contact us on	+27 11 452-5221

2. COMPOSITION / INFORMATION ON INGREDIENTS

Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard Class	Category	Hazard statement Code(s)
Aquatic Chronic	Category 2	H411
Skin Sens.	Category 1	H317
Skin Corr./Irrit.	Category 2	H315
Eye Dam./Irrit.	Category 2	H319

Classification according to Directive 67/548/EEC (DSD)

The product is classified as dangerous according to Directive 67/548/EEC and its amendments.

Classification	N, R51/53 R43 Xi, R36/38

Adverse effects

Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects

2.2. Label elements

Hazard pictograms

Signal word	Warning
Hazard statements	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention	Wear protective gloves. Wear eye/face protection. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	IF ON SKIN: Take off contaminated clothing and wash before re-use. Wash with plenty of soap and water. If skin irritation or rash occurs, seek medical advice/attention. 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. Collect spillage.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards

The data show that the properties of the substance do not meet the specific criteria detailed in Annex XIII and, consequently, that the substance is not considered a PBT/vPvB.

3. HAZARDS IDENTIFICATION

Substance/mixture Mono-constituent substance

Ingredient name	REG # /CAS #/EC #	Classification		%
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)		**Symbol(s)/Hazard Class and Category Code(s)**	**R-Phrases /Hazard statement Code(s)**	
	01-2119456619-26-0002/ 25068-38-6/ 500-033-5	Xi; N;	Xi; R36/38 R43 N; R51 R53	
		Aquatic Chronic 2 Skin Sens. 1 Skin Corr./Irrit. 2 Eye Dam./Irrit. 2	H411 H317 H315 H319	

4. FIRST AID MEASURE

Description of first aid measures

First aid measures

Inhalation: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Inhalation: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Skin: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Eyes: No known significant effects or critical hazards.

See section 11 for more detailed information on health effects and symptoms.

Indication of immediate medical attention and special treatment

Notes to physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Protection of first aid personnel: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable	Use water spray, fog or foam
Not suitable	Do not use water jet.

Special hazards arising from the substance or mixture

Hazards from the substance or mixture	In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	No specific data

Special protective actions for fire-fighters

Special precautions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and material for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Packaging materials

Recommended	Use original container

Specific end use(s)
Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure limit values — Occupational exposure limits

United Kingdom (UK)
No exposure limit value known.

Derived No-Effect Levels' (DNEL's) and Predicted No-Effect Concentrations' (PNEC's)

Explanatory note:
REACH requires manufacturers and importers to establish and report 'Derived No-Effect Levels' (DNEL's) for humans by inhalation, ingestion and dermal routes of exposure and 'Predicted No-Effect Concentrations' (PNEC's) for environmental exposure. DNEL's and PNEC's are established by the registrant without an official consultation process, and are not intended to be directly used for setting workplace or general population exposure limits. They are primarily used as input values in running Quantitative Risk Assessment models (like the ECETOC-TRA model).

Due to differences in calculation methodology the DNEL will tend to be lower (sometimes significantly) than any corresponding health-based OEL for that chemical substance. Further although DNEL's (and PNEC's) are an indication for setting risk reduction measures, it should be recognized that these limits do not have the same regulatory application as officially endorsed governmental OEL's.

Ingredient name	Exposure /Effects	DNELs	Population
Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)			
	Short term Dermal/Systemic	8.3 mg/kg bw/day	Workers
	Short term Inhalation/Systemic	12.3 mg/m³	Workers
	Long term Dermal/Systemic	8.3 mg/kg bw/day	Workers
	Long term Inhalation/Systemic	12.3 mg/m³	Workers
	Short term Dermal/Systemic	3.6 mg/kg bw/day	General
	Short term Inhalation/Systemic	0.75 mg/m³	General
	Short term Oral/Systemic	0.75 mg/kg bw/day	General
	Long term Dermal/Systemic	3.6 mg/kg bw/day	General
	Long term Inhalation/Systemic	0.75 mg/m³	General
	Long term Oral/Systemic	0.75 mg/kg bw/day	General

PNECs

Ingredient name	Compartment Detail	PNECs	Method Detail
Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)			
	Fresh water	3 µg/l	
	Marine	0.3 µg/l	
	Sewage Treatment Plant	10 mg/l	
	Fresh water sediment	0.5 mg/kg dwt	
	Marine water sediment	0.5 mg/kg dwt	
	Sediment	0.05 mg/kg dwt	
	Intermittent Releases	0.013 mg/l	

Exposure controls

Exposure Controls information can be found in the Exposures Scenario(s) attached as Annex to this Safety Data Sheet.

Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid	Odour	Aminic / Solvent
Colour:	Amber	Viscosity @ 25 C	53 KU (Typical)
SG	1.0 kg/lt		

10. STABILITY AND REACTIVITY

Reactivity	Reacts with strong oxidising agents. Polymerises exothermically with amines, mercaptans and Lewis acids at ambient temperature and above. Polymerises in contact with caustic soda. Reacts exothermically with bases (e.g. caustic soda), ammonia, primary and secondary amines, alcohols, water and acids.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Hazardous reactions or instability may occur under certain conditions of storage or use.
Conditions to avoid	Caustic soda (sodium hydroxide) can induce vigorous polymerisation at temperatures around 200 °C. Avoid release to the environment.
Incompatible materials	Reactive or incompatible with the following materials: strong oxidizing agents, sodium hydroxide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)

Acute toxicity

Oral	LD50: Rat 30,000 mg/kg; Not acutely toxic in multiple mouse and rat studies, LD50 > 2000 mg/kg of body weight. LD50: Rat > 1,200 mg/kg;
Dermal	In a rat OECD no. 402 study the dermal LD50 was > 2000 mg/kg. In multiple rabbit acute dermal studies the LD50 was > 2000 mg/kg. One rabbit study reported an LD50 value of 23 grams/kg. No applicable toxicity data. No known significant effects or critical hazards.
Inhalation	Due to the very low vapor pressure, saturated atmosphere = 0.008 ppb, meaningful acute inhalation studies could not be conducted.
Other routes	No applicable toxicity data. No known significant effects or critical hazards.
Skin corrosion/irritation	In an OECD No. 404 study conducted on the rabbit with a 4 hr occlusive exposure scores for erythema and oedema were minimal. Therefore, BADGE is not a skin irritant. In other studies conducted with the rabbit a 4-hr occlusive exposure was used. Maximum erythema and oedema scores observed under these extreme conditions were 1.5-2 and 1-1.5 respectively.
Serious eye damage/irritation	The results of an OECD No. 405 GLP study conducted in 2007 reported a mean maximum irritation score of 1.7. Therefore BADGE was not an eye irritant in this study. The results of multiple older non-guideline studies support this finding.
Skin sensitization	In an OECD No. 429 mouse LLNA study the estimated EC3 was a concentration of 5.7% suggesting that BADGE is a moderate skin sensitizer in this test system. In an OECD No. 406 guinea pig Maximization study BADGE induced positive dermal reaction in 100% of the test animals at a 50% concentration challenge dose. Therefore, BADGE is an "Extreme" skin sensitizer under the conditions of this study. BADGE was also positive for skin sensitization in an OECD No. 406 guinea pig Buehler method study.
Respiratory sensitization	No applicable toxicity data. No known significant effects or critical hazards.

Germ cell mutagenicity	BADGE induced gene-mutation in Ames/Salmonella tester strains TA1535 and TA100 in multiple studies. Generally, mutagenic activity was greater without liver S9 metabolic activation. Induced gene-mutation in L5178Y mouse lymphoma cells. Induced gene-mutation and chromosome damage in Chinese hamster V79 cells. Induced cell transformation in Syrian hamster BHK cells based on clonal growth in soft agar.Did not induce evidence of chromosome damage in a mouse dominant lethal oral gavage study conducted up to a high dose level of 10 grams/kg and in a mouse micronucleus test conducted up to a high dose of 5000 mg/kg. Negative in a male mouse spermatocyte cytogenetic assay with treatment for 5 days by oral gavage up to a high dose of 3000 mg/kg. Did not induce an increase in the frequency of chromosome damage in a Chinese hamster bone marrow cytogenetic test by oral gavage up to a high dose of 3300 mg/kg. Failed to induce an increase of DNA strand breaks in rat liver cells following oral gavage treatment with 500 mg/kg as measured by alkaline elution.
Carcinogenicity	In a rat oral gavage OECD no. 453 study there was no evidence of carcinogenicity up to the high dose level of 100 mg/kg/day. OECD Test Guideline no. 453 dermal exposure studies were conducted on male mice and female rats. No evidence of carcinogenicity was observed in male mice treated up to the high dose of 100 mg/kg/day and female rats exposed up to a high dose level of 1000 mg/kg/day**.**
Reproductive toxicity	No adverse reproductive effects were observed in an O.E.C.D. Test Guideline no. 416 GLP two-generation rat oral gavage study conducted up to a high dose level of 750 mg/kg/day that resulted in adult body weight decrements.
Developmental / Teratogenicity	BADGE did not induce any evidence of development toxicity in rats and rabbits exposed by oral gavage or in rabbits treated by the dermal route in OECD Test Guideline no. 414 GLP studies. The oral gavage studies were conducted up to a high dose level of 180 mg/kg/day that produced maternal toxicity base on decreased body weight gain. The rabbit dermal study was conducted up to a high dose of 300 mg/kg/day that induced maternal toxicity based on reduced body weight gain.
STOT-single exposure	No applicable toxicity data. No known significant effects or critical hazards.
STOT-repeated exposure	In a rat OECD test guideline no. 408 sub chronic oral study the NOAEL was 50 mg/kg/day. Significant dose-related evidence of hematotoxicity was observed at doses of 250 & 1000 mg/kg/day. There was a significant increase of blood urea nitrogen at 250 & 1000 mg/kg/day and slight histopathological evidence of kidney evolvement at the high dose of 1000 mg/kg/day. Histological examination identified slight to moderate degeneration of the seminiferous tubules at 1000 mg/kg/day and possible uterine effects at the same dose. The NOAEL for a rat 90-day dermal (5 days/week) study was 100 mg/kg/day due to body weight decrements at 1000 mg/kg/day. Based on chronic dermatitis the LOAEL for adverse dermal effects in this study was 10 mg/kg/day. No evidence of neurotoxicity was observed in a rat 90-day dermal OECD Test Guideline no. 411 GLP study conducted up to a high dose level of 1000 mg/kg/day with FOB, motor activity and neurohistopathological assessments
Aspiration hazard	No applicable toxicity data. No known significant effects or critical hazards
Other information	No applicable toxicity data. No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

- ***Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)***

Toxicity FISH - The acute 96 hr static exposure LC50 for trout based on the results of OECD No. 203 studies is 1.3 mg/L.Daphnia - The acute 48 hr acute static exposure EC50 value for Daphnia based on the outcome of OECD No. 202 studies is 2.1 mg/L. A NOEC of 0.3 mg/L was observed in a Daphnia 21-day semi-static OECD No. 211 Reproduction study. Daphnia survival, growth and reproduction were significantly reduced at concentrations of 1 mg/L and higher. Algae- The 72-hr algal LC50 value is > 11 mg/L. The activated sewage sludge respiration inhibition 3 hr EC50 value based on an EC test method was > 100 mg/L. The growth inhibitory concentration for Pseudomonas in an 18-hr static exposure study was > 42.6 mg/L.

- ***Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)***

Persistence and degradability The level of biodegradation in an "enhanced" OECD 301F study was 5% within the 28-day contact period. Biodegradation reached 6 - 12 % after 28 days of contact in an OECD test guideline no. 301B study. Therefore, BADGE is not readily biodegradable under the conditions of the studies.

- ***Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)***

Bioaccumulative potential The OASIS CATALOGIC QSAR estimated Bioconcentration Factor of 3 - 31 and Log Pow of 3.24 @ 25 C suggest low potential to bioaccumulate in aquatic organisms

- ***Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)***

Mobility in soil The KOCWIN QSAR estimated adsorption/desorption coefficient Log Koc = 2.65 suggesting moderated sorption to organic matter and limited soil mobility.

- ***Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)***

Results of PBT and vPvB assessment Based upon a low potential to bioaccumulate and EC50/LC50 values of > 0.1 mg/L BADGE is not PBT.

- ***Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)***

Other adverse effects No known adverse effects

13. DISPOSAL CONSIDERATIONS

Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Exercise caution in disposal of used containers

Waste treatment methods

Methods of disposal	The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Hazardous waste	The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION

Regulatory information	UN number	UN proper shipping name	Transport hazard class(es	Packing group
ADR	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN)	9	III
RID	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN)	9	III
AND/ADNR	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN)	9	III
ICAO/IATA		ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN)	9	III
IMO/IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN)	9	III

Environmental hazards

Environmentally hazardous and/or Marine Pollutant Yes

Special precautions for user
Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable

15. REGULATORY INFORMATION

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

EU regulations

SEVESO Directive 96/82/EC	Ingredient name	Listed
	Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	Yes
REACH Annex XVII	Not listed	
Biocides - Annex I to Directive 98/8/EC	Not listed	
Prior Informed Consent. List of chemicals subject to the international PIC procedure (Part I, II, III)	None required.	
Integrated pollution prevention and control list (IPPC) – Air	Not listed	
Integrated pollution prevention and control list (IPPC) – Water	Not listed	

International regulations

Chemical inventories	REACH Status The substance(s) in this product has (have) been Pre-Registered and/or Registered, or are exempted from registration, according to Regulation (EC) No. 1907/2006 (REACH). Australia inventory (AICS) This material is listed or exempted. Canada inventory This material is listed or exempted. Japan inventory This material is listed or exempted. China inventory (IECSC) This material is listed or exempted. Korea inventory This material is listed or exempted. New Zealand Inventory (NZIoC) Not determined. Philippines inventory (PICCS) This material is listed or exempted. United States inventory (TSCA 8b) This material is listed or exempted.

Chemical Safety Assessment
Chemical Safety Assessment has been completed.

Other Information

Full text of abbreviated H statements	H411 - Toxic to aquatic life with long lasting effects. H317 - May cause an allergic skin reaction. H315 - Causes skin irritation. H319 - Causes serious eye irritation.
Full text of classifications (CLP	AQUATIC TOXICITY (CHRONIC) Category 2 - H411 SKIN SENSITIZATION Category 1 - H317 SKIN CORROSION/IRRITATION Category 2 - H315 SERIOUS EYE DAMAGE/ EYE IRRITATION Category 2 - H319
Full text of abbreviated R phrases	R36/38- Irritating to eyes and skin. R43- May cause sensitization by skin contact. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Full text of classification (DSD/DPD)	Xi Irritant N Dangerous for the environment.

16. OTHER INFORMATION

This data is offered in good faith as typical values and not as a product specification. No warranty, whether expressed or implied is made. All information is given in good faith, but without guarantee in respect of accuracy and no responsibility is accepted for errors or omissions or the consequences thereof. The current version of this MSDS and a Technical Data Sheet (TDS) are available from Dura Paints website - www.durapaints.co.za. This product must only be used in conjunction with Dura Concrete Primer (Part B) in the ratios specified in the Technical Data Sheet (TDS) – Dura Concrete Primer (Part A & B) / DI038.

C	=	Ceiling limit	NEGL	=	Negligible
EST	=	Estimated	NF	=	None found
NA	=	Not applicable	UNKN	=	Unknown
NE	=	None established	REC	=	Recommended
ND	=	None determined	V	=	Recommended by vendor
TS	=	Trade secret	SKN	=	Skin
R	=	Recommended	MST	=	Mist

END OF MSDS